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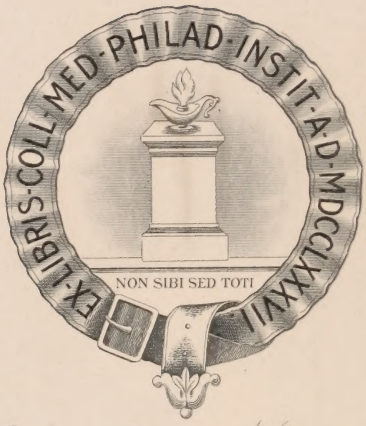

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THE CHICAGO
MEDICAL JOURNAL.

VOL. III. JANUARY, 1860. NO. 1.

Original Communications.

ARTICLE I.

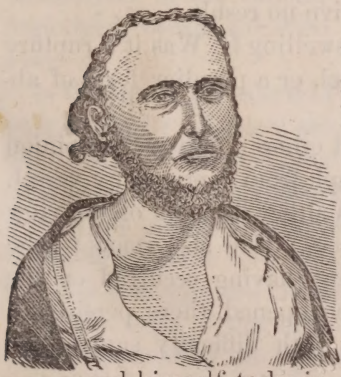
CASE OF LYMPHATIC TUMOR;

VARIX OF THE LYMPHATIC TRUNK.

BY DANIEL BRAINARD, M. D.,

Professor of Surgery in Rush Medical College, Surgeon of the U. S. Marine Hospital, of the City Hospital, Chicago, etc.

H. W. Johnson, of Chemung, Wisconsin, a physician, aged 48 years, applied to me February 20th, 1847, on account of a tumor situated on the right side of the neck.



This tumor was as large as the "double fists," situated immediately above the clavicle, behind the sterno-mastoid muscle. (*See fig.*) The external jugular vein passed over it. It was perfectly fluctuating, rather soft, free from pain, tenderness or redness. On applying a light, it was seen to be translucent, like a hydrocele. The patient considered himself to be in pretty sound health, although of a sallow complexion.

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History.—It had originated, without any known cause, some six or eight years previously, and increased very slowly until within a year, during which it has grown more rapidly.

Treatment.—I advised, for the purpose of palliation and for testing the character of the tumor, the use of the exploring trochar. It was accordingly punctured with this instrument, and about ten ounces of yellow fluid drawn off, which only about half emptied it. This was of a straw color, resembling exactly in appearance the fluid drawn from a hydrocele, some of which happened to be standing in my room at the time, but on dipping the finger into it, it was felt to have more consistency.

Microscopic Appearance.—On examination with the microscope, numerous lymph corpuscles were seen in both the coagulum and the serum. The coagulum was composed of fibrin and corpuscles.

Chemical Properties.—Considerable coagulum formed in the lymph on standing. The serous part coagulated very completely by heat. The coagulum presented an arborescent appearance.

Berard states that the solid part of the clot of lymph assumes a purple hue on the contact of carbonic acid, and a bright red on the contact of oxygen.*

This was found to be the case with regard to oxygen when applied to the fibrin, but that used for carbonic acid was unfortunately so much dried as to give no result.

What was the nature of this swelling? Was it a rupture or dilatation of a lymphatic vessel, or a peculiar form of abscess, or a serous cyst?

Chelius quotes Bieul, Rust and others in favor the opinion that it is an extravasation of lymph from rupture of a vessel. On the other hand he quotes Walther in favor of the view that it is an abscess, (lymph abscess.) He also refers to the case of Nasse, in which a swelling having occurred on the upper part of the thigh and been opened, there persisted a discharge of lymph which was with difficulty suppressed. Vol. 1, p. 60.

* Cours de Physiologie, vol. 2, p. 778.

Notwithstanding this and other cases of so-called fistular openings of lymphatic vessels, doubts of the nature of such cases may still be entertained.

The case reported by Mr. South, in his notes to Chelius' Surgery, is quite uncertain in its character, for want of a suitable examination of the fluid, the only details given concerning it, being that it was "very similar to synovia."

We may, I think, affirm with safety, that the tumor above described is most unlike an abscess in its history, structure and contents, and in the result of treatment. Nor can the peculiar character of inflammation, when occurring in the lymphatic system, be invoked to account for these peculiarities. The diseases of the lymphatic system, with the exception of varix of the trunks, are well understood. Inflammation, whether occurring in the trunks or ganglions has been studied with great attention since the latter part of the last century. The serous pus formed in cold or scrofulous abscesses, is the well-known result of certain grades of inflammation in the tissues. But nothing approximating to the character of lymph has been found in such abscesses. The conclusion seems, then, irresistible, that this tumor was the result of a rupture or dilatation of a lymphatic vessel.

If I were to adopt a different conclusion, the only alternative would be to suppose that inflammatory lymph may remain indefinitely in the tissues, without degenerating, becoming organized, being absorbed, or suffering any change whatever.

Is the tumor the result of a rupture or dilatation of the lymphatic vessel? No data are furnished by which to resolve this question. On the one hand we might cite the case of aneurism, when there is a rupture of some of the coats of an artery, and on the other, that of varix, where there is dilatation of the covering of the vein. It seems, however, that the probabilities and analogies are altogether in favor of dilatation.

Serous cysts of the neck are not by any means rare, and their treatment by the injection of iodine has been resorted to with success. The reactions of the fibrinous parts of the contents of this tumor appear to me sufficiently conclusive as to

its character. If it was a lymphatic tumor, the treatment was, so far as I am aware, new.

April 21, 1857.—Patient returned. Tumor nearly as large as before.

Tapped with a common hydrocele trochar, and drew off 12 ounces of fluid, which completely emptied it. Injected a small quantity of solution composed of Iodine one scruple, Iodide of Potassium one drachm, to one ounce of water. A small quantity remained. This produced an acute pain, shooting down into the shoulder, and up into the neck.

The fluid in this case was more turbid than at the former puncture; coagulated, but the coagulum did not separate as before, but resembled jelly.

The following note from the patient, written eighteen months after the operation, will sufficiently show the result:

—

HOWARD, McHenry Co., Ill., Dec. 27, 1858.

DEAR SIR:

Your kind letter of Dec. 3d has just arrived, inquiring as to the result of your injection of Iodine into the sack of a tumor on the shoulder. I am very happy to inform you it succeeded admirably. In about sixty days, it contracted the sac down to the size of a penny; in from three to four months the last vestige of it disappeared, without further treatment, and it is at this time perfectly well and smooth as the other side. It remained somewhat sore and numb for five or six months from the time of operation.

And in conclusion, allow me to express my heartfelt satisfaction for your kindness, as well as the correctness of your diagnosis, and the ability and care with which you affected the cure; for it, as to its results, had become the source of a good deal of annoyance to me. My general health is as good as it ever was. One thing I forgot to mention to you at the time, not thinking it connected with the tumor, viz., bloody urine for two years previous to the operation, that ceased altogether as the tumor disappeared. Could it have been the result of, or in any way connected with, the growth of the tumor?

Any further information that you may require, will be cordially responded to. Three months from the time you operated, I wrote a full account of it, but I suppose you never received it, from the fact I never heard from you till now. Drop me a line as soon as possible, so I shall know you have received this.

H. W. JOHNSON.

D. Brainard, M. D.

ARTICLE 2.

DIPHTHERIA.

BY W. GODFREY DYAS, M. D., CHICAGO.

[Continued from Page 673 Vol. 2.]

Perhaps no part of France suffered to a greater extent from Diphtheria, than Boulogne. Here a large proportion of the inhabitants is British, and from among these the pestilence unsparingly selected its victims. Within two years—from 1855 to 1857—366 persons succumbed to its virulence; and there, as elsewhere, the same insidious approach—the same pseudo-membranous patch in the fauces—and the same prostration, were its attendants. As in Paris, so in Boulogne, the extension of the false membrane was rather towards the nares than the larynx; but the onset, in many instances, was more frequently marked by nausea—a symptom that soon came to have a fearful significance. This nausea was succeeded by vomiting, on which supervened other well-known signs, which too truly indicated that the system was already unequally committed to a struggle with an enemy that seldom failed to come off victorious, and to oppose which, the resources of art had too often proved unavailing. Occasionally, the disease set in with convulsions, which indicated peculiar danger. When the membranous exudation rapidly extended to the posterior nares, the prognosis in every such case was unfavorable. Meningitis and Gastro-Enteritis were no uncommon compli-

cations. Often the enlargement of the cervical and submaxillary glands preceded the deposition of false membrane. It is remarkable that in no two places was there a perfect resemblance either in the grouping of the symptoms—in their order of succession—or in the degree of their individual development. Still, in all, the essential features of the epidemic were alike. In Avignon, in 1853, out of a force of 1686 soldiers, it attacked 195. It exhibited a decided predilection for children, 18 per cent. of whom were seized; whilst of adults, but four per cent. were sufferers. Here the almost universally fatal symptom was a sense of constriction in the larynx. M. Lespiau (Relation d'une Epidemic Diptheritique qui a sevi sur le 75e de ligne) observed that but one of those who had this symptom recovered. In Nievere the disease did not attack the larynx. In the Haute Marne, the nasal fossa were the principal seat of its local manifestation; and we are told by Jobert that the epistaxis consequent on this, materially contributed to the fatal issue. On the other hand, in the neighborhood of the Pyrenees, the disease, as in Tours in 1818, chiefly destroyed by its extension to the larynx. How slowly the disease progressed from the time it appeared in that year among the soldiers of the legion of La Vendee until its arrival in 1855 in Boulogne! How capricious in its habits, and how fluctuating in its character! On its reaching a district previously unassailed, no opinion of its probable course, or of its amount of malignancy, could be formed from any experience of these acquired elsewhere. Having arrived at Boulogne, which maintains uninterrupted intercourse with England, the breadth of the English Channel proved, as might be expected, but a feeble barrier to the transmission of the disease to that country. Accordingly, early in the year 1857, we have the first distinct intimation of its arrival in England. It then appeared in Kent, from which it extended to Essex. Its progress was more especially in the direction of the eastern countries. Yet it was not limited to these. Almost simultaneously, we hear of its being in Cornwall. During the Spring and Summer, it seemed not to have the virulence it displayed in France; but the Winter of the same year wit-

nessed a progress as devastating as any experienced in the latter country. Not confining its attacks to such as had been enfeebled, it indiscriminately seized on the cachectic and robust. In some districts, it was comparatively mild. In Dudley in Staffordshire, the deaths were not in proportion to the number attacked. It was frequently complicated. In Gainsborough, Canterbury, Ashton under Lyne, Eastry, Freeham, Twickenham, it was associated with scarlet fever; with whooping-cough in Macclesfield, Congleton and Nantwich; with gastro-enteritis in Lincolnshire; with gastric fever at Beccles; with small pox in Lancashire; with measles at Acton, where out of twenty-five deaths eleven were due to diphtheria complicated with measles. Small pox proved a fearful complication, and largely contributed to the mortality. But in no part of England was diphtheria more virulent in form than in Norfolk. "In the district of Tunstead, six children of one man at Swafield, were carried off within five weeks, being all the family, with the exception of one infant at the breast." (*Report of the Lancet Sanitary Commission.*)

The epidemic in Essex, if not more severe in form, was perhaps more general and extensive in its attack than elsewhere. In the words of the "Report," "the affection (in Essex) was almost universal." But taking into consideration all the circumstances which contribute to the severity of an epidemic—the number seized, and the type of the disease—in no part of England was it marked by the same malignancy of character and the same remarkable prevalence of attack in combination, as in Lincolnshire. In England, as in France, the tendency of the pestilence in its progress was northward. In this respect resembling cholera and influenza, yet unlike them in not showing the same propensity to extend, as they, from east to west. Apparently capricious in its mode of seizure—in its course and in its results, too often feebly controlled by art, it maintained its destructive tendencies, whether these were expressed by typhoid symptoms—by asphyxia, or by a general failure of the powers of life, either immediately or remotely. We will not now stop, to inquire what were the pathological facts developed, and to discuss the various modes of treatment adopted

by British practitioners. The consideration of these, we postpone until we shall have glanced at the disease as it has presented itself in this hemisphere. The earliest notice we have of it in this country, is from the pen of Dr. Baird, who, under the title of "suffocative angina," has recorded the particulars of an epidemic that occured in New York in 1771. He describes the pseudo-membranous patches characteristic of this disease. More recently, Dr. Bell observed in Philadelphia an epidemic supposed to be diphtheria. These observations have not been made with the care and exactness that would entitle them to a formal or lengthened notice.

Still more lately, under the head of "Pseudo-membranous Laryngitis," several cases of Diphtheria have been detailed by Dr. Meigs. These cases were seen in Philadelphia in 1845. (American Journal of the Medical Sciences for April, 1847.) In some there was no fever, in others, this was violent. The fauces were covered with fibrinous exudation. The external lymphatic glands were much enlarged. Dr. Meigs' treatment consisted in emetics of alum, general bleeding, calomel, leeches to the throat, tartar emetic, purgatives and warm baths—means which would be wholly inadmissible at present. Nitrate of silver was applied in solution to the fauces. As several of his patients recovered under this treatment, it is reasonable to infer, the constitutional symptoms, were not of the malignant nature they have been in later epidemics. Dr. Meigs approved of alum as an emetic, a teaspoonful of which he administered as a dose, given in molasses as a vehicle, and repeated in ten to twenty minutes, if necessary. During the months of July, August, and September, 1848, Diphtheria appeared as an epidemic, in Augusta. Dr. Henry Campbell, of the Medical College of Georgia, speaks of it in his work, on the "Nervous System in Febrile Diseases." He thus writes: "There is occasionally met, a sporadic case (of Diphtheria;) but the disease occurred here once in the form of a most destructive epidemic, during which, a deplorable number of the children in Augusta and its vicinity fell victims. Paroxysmal fever prevailed that year, perhaps to no unusual extent; but in every child affected with the fever, the, at first, fatal marks

of this terrible affection would show themselves. The earlier cases, however, were unattended with any febrile symptoms. The child might appear perfectly well until the very disagreeable odor of the breath, or perhaps some difficulty of respiration would attract the attention of the parent or physician. On looking into the mouth, the posterior part of the pharynx would be found covered with the characteristic white secretion or false membrane; and the case under these circumstances, was often far advanced towards a fatal termination.

"We have said that nearly all the earlier cases were without fever, and yet this was by far the most fatal period of the epidemic. As it progressed, fever presented itself in some of the cases as a complication, and this fever was soon discovered to be of a paroxysmal character."

Dr. Blake considered the enlargement of the cervical glands the most common cause of death. In Dr. Wooster's cases, "the disease," he says, "was recognized by the following characteristics: high fever, rapid pulse, congested and watery eyes, coryza, diminution of urine, difficulty of deglutition, even of fluids; invariably by enlarged tonsils—one or both; by the characteristic pseudo-membranous exudation on the tonsil uvula pharynx or nasal lining."

According to Dr. Pollard, of Richmond, the disease has prevailed recently to a considerable extent in Shirley on the James river in Virginia. About thirty cases occurred, of which two proved fatal. Dr. Pollard's observations are particularly valuable, as they clearly illustrate the inefficacy of calomel in diphtheria. He administered it to a child aged five years, the attack partaking of a mixed character, malignant and croupal, in the dose of 8 grains on the 1st day; on the 2d, 3 grains every 6th hour; on the 3d and 4th days, 3 grains every 4th hour; on the 5th day he suspended it, as "green spinach" discharges made their appearance, and on the 7th day the child died. This and other cases induced him to withdraw his confidence from mercury in diphtheria, and to depend rather on supporting treatment. In the June number of the Boston Medical and Surgical Journal, there is a very practical and useful paper on the disease by Dr. Beardsley, of

Milford, Conn. In it he states that the disease first appeared in Orange, a town, as he remarks, "in an elevated situation, and in a remarkably healthy place, with only a sparse population, and for a while was confined entirely to the scholars attending a select school in the village, but who were boarding in different parts of the neighborhood." This he mentions to show that there was some endemic influence in operation. "Fourteen cases out of fifteen of those who were first attacked, proved fatal, in periods varying from six to twenty-four days. Twelve of these cases were in three families, four in each. Five were under ten, eight were ten to twenty-two, and one was forty years of age."

"Most persons residing in the district where the epidemic first appeared, had at different periods, and during its prevalence, symptoms of the disease, more or less severe; but those who were exposed, and attacked severely, (the writer among this number,) in removing to another locality, suffered from only a modified and mitigated form of it,—corresponding, in this respect, to the general law of endemics." He remarks that "the first symptom of this disease, and it is one," he observes, "which we have never seen referred to by any writer on the subject, was pain in the ear." We think, however, Dr. B. will find in Bretonneau's first case, mention made of this symptom. "It was," he continues, "invariably present, in every case that came under our observation, for a day or two before the patient made the least complaint in any other respect, and before the smallest point or concretion of lymphatic exudation could be discovered on the tonsils or elsewhere."

In Dr. Beardsley's cases, the appetite and digestion were generally unimpaired; and "although typhoid fever was superadded, or ensued in one or two instances, there was not in any case, mental disturbance that was observable, during any stage of the disease." In Dr. Pollard's cases, want of appetite was a very striking characteristic in every form of the complaint. Dr. Beardsley experienced no satisfactory results from external revulsives, and the topical application of astringents. "Hydrochloric acid and tincture of myrrh, combined in equal

parts, and applied with a sponge to the fauces, detached the pseudo-membrane more readily, and diminished the liability of its being renewed, more effectually than any other remedy used for that purpose. But Monsell's salt was found to be the most efficacious and valuable of all topical applications;" "and the free use of alcoholic stimulants, especially brandy and whiskey, generally produced profuse diaphoresis, by which great relief was experienced, not only from the general depression of the nervous system, but also from the most formidable local affection."

Since that, we have had the disease in Sacramento in 1856; and we are indebted to Drs. Blake and Fougeaud, for two well written papers on Diphtheria as it occurred there. From Dr. Wooster we have had an instructive essay embodying his views of the disease, as it appeared in San Francisco. Dr. Fougeaud seems to have encountered croupal Diphtheria more frequently than the more malignant form.

From what we have now seen, it may be remarked that this disease has modifications not only in degree, but in form. It has also various modes of accession. It may destroy life in a few hours by a violent and deep impression on the nervous centres attended by congestion of the internal organs; in this form, we may not be able to witness the pseudo-membranous exudation supposed to be pathognomonic of it. What a remarkable analogy there is in this, to what we occasionally see during an epidemic of scarlet fever: particularly in the commencement, when its virulence is most marked. Then it is not very uncommon to meet with a case terminating in death, after from two to four hours illness, without presenting the usual characteristic signs of the disease; a sudden morbid influence on the nervous system, and extreme congestion of internal organs, being all we have to account for the rapidly fatal result. In diphtheria as thus occasionally in scarlet fever, we may have a deadly pallor of the surface—a dusky hue of the countenance, and particularly of the lips, a soft irregular pulse, tongue moist and livid, pupils dilated, drowsiness, urine limpid, and often suppressed, no complaint of local pain, and an air of indifference when roused from stupor. In such cases, death will take place

within four hours. This form of diphtheria is rare; but there is another more frequently met with, and scarcely less malignant. The subject of it, generally a child, perhaps retires to rest apparently in its usual health. In the middle of the night, or rather towards morning, it awakes with a sense of distressing nausea, followed by vomiting of a thin whitish glary fluid. Then there is a purging of something similar; the fluid discharged from the stomach and bowels being particularly offensive. The child most probably does not complain of uneasiness in the throat: he is drowsy, and seems disinclined to answer questions. The face is pallid and its expression altered. On examination, we are struck with a shining crimson appearance of the mucous membrane of the fauces. From the velum a tenacious thin sheet of translucent mucous hangs like a curtain over the base of the tongue, the papillæ of which are developed, its surface dry, clean and red. The pulse is rapid, irregular, and compressible. The skin may be warm, though more generally cool. After a lapse of some hours, reaction takes place, and now there is a difficulty of deglutition. Drowsiness is succeeded by delirium; respiration is more frequent. The neck is swollen, hard and tender, chiefly in the parotid and submaxillary regions. The anterior half of the tongue may be clean, but posteriorly it is coated with a thick fur, which sometimes is continued to its tip. The whole of the fauces is covered with a deposit like wash-leather. One or both tonsils swelled. The breath is offensive. A thin sanies issues from the nares and there may be epistaxis and bleeding from the gums. At first, the urine is limpid, but should the attack not terminate in death within twenty-four hours, it becomes more colored and there will be a deposit of lithates; at a later stage it is albuminous and contains the coloring matter of the blood; petechial spots form on the surface: diarrhœa sets in, or if it has been persistent from the beginning, the discharges become altered in appearance, being like what we occaisonally see towards the close of dysenteric cases—serous, and like the washings of flesh, accompanied by intolerable fœtor. The surface grows cold and either coma or a tetanic convulsion terminates life. When diphtheria thus presents itself, it generally

proves fatal within four days. Few cases of this kind escape, and fortunately it is not the usual type of diphtheria, even when malignant. The malignant form of the disease most familiar to practitioners, during an epidemic, commences with a sense of lassitude preceding a variable amount of fever and slight soreness of throat. The pulse becomes rapid, small and compressible; the tongue is covered with a thick, yellowish dirty-brown coat; the uvula, velum and pharynx are at first of a dusky red; deglutition is painful and difficult; the neck, about the parotid and submaxillary regions, swells; from the nose, distils an acrid humor; the voice changes; the breath grows fetid; the breathing, from mechanical obstruction, is stertorous; there may be vomiting, and there is much thirst. In some hours the erysipelatous hue of the fauces is replaced by a deposition as if, as Dr. Blount expressed it, a "thin layer of pie-paste was spread over the parts, the edges being thick and abrupt." The urine is scanty and albuminous; debility increases, and the patient sinks exhausted, often retaining to the last, the intellect in its integrity. This is the most frequent mode of accession, progress, and termination of malignant diphtheria; and its duration is generally from eight to ten days. The next variety of the disease is what has been termed croupal. In some epidemics, this has been the prevailing type. It does not appear to be attended with the same oppression of the system of those already described. A sense of constriction in the larynx is an early symptom; the accompanying fever is generally sthenic in character, though some such cases have not presented, from beginning to end any pyrexia—the false membrane rapidly extends to the respiratory organs; there is a hoarse, barking cough, with occasional paroxysms of suffocation, and death takes place by asphyxia. Nothing can contrast more strongly than the peaceful termination in death from asthenia so frequent in malignant diphtheria, and the distressing and painful struggle witnessed when asphyxia thus closes the scene.

In proportion to the suddenness of invasion and the signs of congestion will be the gravity of prognosis; whereas, when the invasion has not only been more gradual, but appeared

in the commencement with symptoms of catarrh, it will be favorable. This fortunately is the form in which this disease most frequently appears in this country. Coryza, slight fever with headache and a pain in one or both ears usually usher in the attack. There is some soreness of the throat without swelling either of the fauces or the glands externally. The appetite is often scarcely lessened. There may be diminished energy, but not so much as to prevent the patient attending to his usual pursuits. The fauces on examination, will present one or more insulated patches of pseudo-membranous exudation of a greyish-white appearance, not so defined at the edges nor bordered with the same distinct redness as in the malignant variety, but shaded off, as it were. In this form, which lasts from five to ten days, there may be some albuminuria; and even after the more prominent signs of the disease shall have passed away, albuminuria may for a variable length of time be persistent and accompanied by an anœmic state of the system.

When the febrile symptoms are slight; when there is no stupor; the pulse unaffected; the surface neither cold, nor of a dry burning heat, but soft and moderately warm; when the expression is not altered; the face not pallid nor dusky, the lips retaining their ruddy hue; the neck unswollen; the papillæ of the tongue undeveloped; and instead of a dry erysipelatous, and as it were varnished crimson, appearance of the fauces with much œdema of the woula and soft palate, there is a bright red aud moist surface on which may be discerned the usual vascular arrangement; notwithstanding that the patches may be still adherent but separating at the edges, provided there be no appearance of fresh deposit, then may we hope for a favorable result. But it must be remembered, there is no disease in which amendment is more fallacious. We cannot, either from a particular sign, or assemblage of symptoms, calculate with the same approximation to certainty as in other affections, what the termination may be. The disease may have commenced without any indication of peculiar danger—may observe a course in accordance with the mildness of its accession—there may even be an improvement

in every symptom, when suddenly, hope is chilled and the buoyancy and confidence sinks in despair; the patient so lately supposed free from risk, is all at once seized with croupy symptoms, and in a few hours ceases to exist. The deceptive nature of these cases is most happily expressed by a recent writer. (Brown, *Half-yearly Abstract*, vol. xiii p. 70.) "I have seen them die," he says, "in four hours from such sudden invasions; they may linger five or six days, with intermissions of eight or twelve hours; the croupy breathing would suddenly cease; the little sufferer would sit up, smile, eat, drink, and amuse itself. The delighted parents would point to him in admiration of your skill. The sonorous breathing, which told so plainly at your last visit, that death was there, has disappeared; and off your guard, you, in the general joy, pronounce him safe. A few hours suffice to turn this joy into mourning; the stridulous breathing returns, to end only with life." In a case like this, a post-mortem examination will reveal the extension of disease from the pharynx to the respiratory passages, and death will have been the result of asphyxia. But it is by no means necessary to the production of asphyxia that the larynx should participate in the complaint—the enlargement of the cervical glands and of the tonsils, the swollen and coated state of the fauces and obstruction of the nares in combination with altered innervation, can of themselves produce asphyxia. In addition, there is in the malignant form of diphtheria, a more or less congested state of the lungs; in many cases, lobular pneumonia, and thus there is no difficulty in understanding how, in numerous instances of the disease, an exudation of pseudo-membrane in the larynx is not essential to the production of asphyxia.

The French physicians first observed that diphtheria might run its course from beginning to end, to recovery or death without a single pyrectic symptom. And though pyrexia be present, the type of the accompanying fever is not always the same. The tendency usually is to the typhoid. In this country, the attendant fever has occasionally been intermittent. During the epidemic in Augusta in 1848, Dr. Campbell remarking the accompanying fever to be paroxysmal in char-

acter, was induced to adopt an antiperiodic medication, which proved more successful in his hands than that previously employed. The disease has also within a short distance of this city been attended with the same form of fever. This may perhaps be owing to the region in which it appeared, being malarious; as it also was most probably the determining cause in Augusta.

The exudation of false membrane exists in all case of diphtheria, except in those extremely rare ones wherein the system is at once overwhelmingly oppressed by the attack, and life is extinguished ere time is given for the usual characteristic phenomena to be fully developed. It is not the cause of any subsequent train of constitutional symptoms, as Bouchut imagined. Neither is it a mere complication. But it is a link in the chain of pathological events—a never failing evidence of a peculiar morbid condition of the general system. Not more real perhaps than others—but one more clearly expressed. As constant as the inflammation and ulceration of the clustered glands in enteric fever—as the rash and catarrh of measles—the sore throat and rash of scarlatina. It appears very early in the disease, within eight or thirty hours from the beginning of the attack, commences generally on one tonsil or rather in the sulcus between the anterior pillar and tonsil, like a stain left by nitrate of silver on a mucous surface—a pearl-colored spot on a red ground. Sometimes it appears, at first, on the uvula or velum. From some one of these points, it more or less rapidly extends, so as often, in from twenty-four to forty-eight hours, to cover the tonsils, uvula, velum, pharynx, pillars of the fauces and base of the tongue, with a continuous layer. It may pass along the respiratory passages to the bronchial tubes and even down the æsophagus; according to some, as far as the cardiac orifice.

Has it ever extended to the stomach and intestines? We are not aware of any post-mortem examination that has revealed it in connection with this disease. Not that the stomach and intestines are insusceptible of an influence under which an exudation of false membrane is occasionally poured out; and that too, both in acute and chronic disease. Andral

saw it in chronic gastritis, and Habershon has detailed several cases wherein it was a complication of acute and chronic complaints; but in no instance, as far as we can learn, has it been visible on the mucous surface of the stomach or intestines in connection with the disease we are now considering. Future investigations may show that the exudation is less limited in this direction than pathologists at present imagine. It may pass from the nares along the nasal ducts to the conjunctivæ. The mucous membrane of the cheeks, of the gums; the cutaneous surface, the vulva and the anus may be its seat. Its thickness increases with its area. Its appearance is variable. Sometimes it is in distinct, dull white patches; at others, it is confluent. Occasionally it assumes a light buff, yellowish, ash-colored, or even black appearance. Its thickness varies from the thinnest imaginable pellicle to two or three lines. It may be firm, or be a mere diffluent pulp. The mucous tissue, on which it rests, is, in the fauces, generally unaffected by gangrene or ulceration; not, however, universally so; as one of these states will now and again exist. It is always congested and more or less infiltrated with products of inflammatory action. On its surface, between the basement membrane and epithelium, is the pseudo-membranous deposit exuded. After a few days it begins to be detached, separating at the edges, which curl up, and at the same time an offensive sanies flows from the surface now being exposed. It comes away either by piecemeal, in shreds, or with a more extensive surface. When violently removed, whenever this is possible, the mucous membrane beneath presents numerous bleeding points, but its surface is usually but slightly excoriated. However, when the cheek is the seat of the deposition, on the detachment of this, the surface will be more commonly ulcerated. Examined with the microscope, different appearances are seen, as the portions exuded at first or at a later stage are viewed. That first exuded consists of a net-work of coagulated fibrin mixed up with epithelium cells and with granular matter, whilst that subsequently formed, and in immediate contact with the mucous tissue, is more free from cells and consists of nearly lymph alone. The arrangement is laminar.

It was supposed by Dr. Laycock (*Med. Times and Gazette*), that the disease was the effect of a parasitic fungus (*oïdium albicans*) affecting the surface of the fauces and mouth. This is now thought to be merely accidental, and not necessarily connected with the affection. Some observers state, they can discern a distinct fibrillation; but this is denied by others. It appears incapable of organization, and in this, certainly differs from the matter exuded in croup, in which we have in some instances distinctly observed a well marked vascular arrangement. In stating this, we are aware we differ from Dr. Bristowe, who in the *Med. Times and Gazette* has published an excellent paper on diphtheria, yet we hesitate to receive opinions based merely on microscopic observation. It is not likely that products resulting from two so different conditions of the system as obtain in diphtheria and croup will be identical. The one disease is characterized by an altered state of the whole organism—by asthenic and toxic symptoms; whilst the other, as far as constitutional symptoms are concerned, has not a feature in common with it; and, moreover, in confirmation, admits with advantage of a treatment that has been proved to be positively injurious in the former. About the fourth day we will most probably have swelling of the neck. Now there is something peculiar in the appearance of this swelling. It is not shaped like that seen in scarlatina; it is more oval. It does not efface the angles of the jaws, neither is it so rounded or so equally diffused. The effusion which contributes to it seems to be rather under the deep than the superficial cervical fascia—especially under the layer that immediately covers the sterno-cleido-mastoid muscle. The submaxillary gland is more disposed to enlarge than the parotid and cervical. The swelling of the neck externally appears to be proportioned to the amount of disease in the fauces; where we find the glands much increased in size and generally swollen even down to the clavicle, we need not be surprised to see, on a post-mortem examination, the tonsils not merely enlarged and their sulci filled with purulent matter, but in some few cases that even gangrene has seized on either of them. We need not

expect to find nature in the progress of morbid change, limiting herself to the accurately defined path, to which some writers, in their zeal for system and distinctive pathological conditions, would fain restrict her. We will therefore occasionally see in this disease, ulceration and gangrene of the tonsils. When the attack is mild, and the general health unreduced, there is seldom the intolerable odor of the breath experienced when the type is malignant and a tendency to decomposition exists not only in the system itself, but in the morbid products separated from it. Vomiting is a formidable symptom in diphtheria. It declares itself, at two distinct periods. It may usher in the usual train of morbid phenomena, or be the immediate precursor of a fatal termination.

We have now viewed diphtheria as it destroys life or finally disappears, after a few weeks at farthest; but it may be seen under other phases. The patient may have recovered from the immediate effects of the attack; he may even appear convalescent; and yet, without any further well-defined symptom, he may sink in several weeks after all the characteristics of diphtheria shall have disappeared; or he may suffer from partial or general paralysis. Paralysis may not set in as a sequela for some weeks after the date of the seizure of the complaint. After all disappearance of false membrane, and when deglutition is no longer painful, a morbid impression still continues to be made on the nervous tissue, causing not merely a persistence of general depression, but even impairing or altogether suspending the functions of the nervous system. Four cases are related by Dr. Eade, of Norwich, in which paralysis supervened on diphtheria: in the first case the person began to complain of paralysis in a month after apparent recovery from diphtheria; in the second, in fourteen days; in the third, in ten weeks; and the fourth case is that of a patient in whom the original attack was so slight as not to prevent his working. In a fortnight afterwards he thought he was quite well, when he was seized with numbness in his hands and feet, preceded for two or three days, but not accompanied, by vague pains in the back and elsewhere. (Cases of Paralysis, by Peter Eade, M. D., *Lancet.*) In all these cases, the spinal

system was especially engaged. In two, the fifth nerve was affected, there being numbness of the cheeks and nose.

Whilst our attention is directed to this part of our subject, we cannot avoid considering somewhat in detail the phenomena more immediately dependent on the undoubted though mysterious influence of some poison on the nervous system. We have been struck with the generally unmanageable nature of the cases in which violent and long-continued vomiting has been a prominent symptom, and have been induced to consider this as the result of a direct and morbid impression on the source of the par vagum. To this we also refer much of the dyspnœa encountered in some cases, wherein neither the amount of pseudo-membranous deposit, nor the situation of it, nor the extent of external swelling of the neck, nor of the fauces can satisfactorily account for this symptom. Perhaps Dr. Pollard's 2d case, as related in the *Virginia Medical Journal*, for September, 1859, will supply what is illustrative of this. The dyspnœa and vomiting in that case were most prominent symptoms, and will admit of explanation on this ground more readily than on others. In many of the untoward cases the fatal result has been preceded by a loss of deglutition, which should rather be referred to the same source than to the mere injury done the muscular tissue itself. It is probably due to impairment of the motor functions of the pharyngeal branches of the par vagum: perhaps, also, the muscular branches of the glosso-pharyngeus, which supply the stylo-pharyngeus, and partially, the constrictor muscles, receive some unfavorable impression of the same kind. The afferent functions of this nerve may likewise be compromised; the conveyance of impressions from the surface of the fauces to the medulla oblongata being suspended by the noxious influence of the poison on the nerve. These paralytic affections that appear as sequelæ of diphtheria, almost always yield to suitable treatment. A case, however, is recorded where death took place from a lesion of the nervous system expressed during life by hemiplegia. Cases of amaurosis are also recorded, owing their origin to the same cause.

Diphtheria, when epidemic, is also contagious. There is no

fact better ascertained than this. A child with the disease was attended by M. Herpin, of Tours. During one of his visits, the patient being seized with a fit of coughing, some of the diphtheritic matter that was ejected having rested on the aperture of M. Herpin's nostril, he for some time omitted to remove it. The result was near being fatal. Diphtheria declared itself, which, being cured with difficulty, was followed by a protracted convalescence. Gendron, of Chateau de Loire, received the disease in a similar manner, and narrowly escaped. In addition, a case is recorded of a boy having contracted cutaneous diphtheria by using a bath in which a diphtheritic patient had been previously bathing.

The post-mortem examination of those who have died of diphtheria, often reveals serious lesions. In severe cases, the areolar tissue of the neck will be not only congested, but infiltrated with a yellow gelatinous serum, or even with blood; and this frequently from the jaw to the clavicle. The pharynx, and, for some distance, the œsophagus, the tonsils, the cheeks internally, the mucous membrane of the nares, and its prolongation towards the eye, the pillars of the fauces, and both surfaces of the epiglottis, velum, uvula, larynx, trachea, and bronchial tubes are occasionally covered with the characteristic pseudo-membrane. The sacculi laryngis may be filled up with it. The mucous membrane beneath may be but slightly excoriated; it is not often ulcerated, and still less frequently gangrenous. The tonsils may be simply congested, may contain suppurating cavities, or even be gangrenous. In the worst cases, the lungs will present patches of red hepatization or of purulent infiltration separated from each other by portions of crepitant lung. Elsewhere there may be more or less of simple congestion, and the bronchial tubes may contain much mucous. Blood is seen occasionally extravasated in the muscular tissue of the heart. In malignant diphtheria the kidneys often bear marks of disease; though in every case of this disease wherein albuminuria exists, we do not attribute it to a positive change of structure. In some cases, there will be seen hemorrhagic exudation into the tubules, and a granular condition of the epithelial cells. Some-

times the channel of the tubes is lifted up by them, and transparent fibrinous casts are seen. The viscera are often dotted over with petechial spots, owing, most probably, to some change having taken place in the blood.

(To be continued.)

ARTICLE 3.

REMOVAL OF SEVEN INCHES OF SHAFT OF THE FIBULA—RECOVERY OF THE PATIENT—DESCRIPTION OF A NEW INSTRUMENT FOR FACILITATING THE PASSAGE OF THE CHAIN-SAW UNDER THE BONE.

BY E. S. COOPER, A. M. M. D.,

Professor of Anatomy and Surgery in the University of the Pacific, San Francisco.

Case.—Mr. A. A. aged 35 years was admitted into the Pacific Clinical Infirmary, June, 1857, in consequence of long standing ulcerations and sinus openings on the outer part of the right leg. On introducing the probe through the small sinuses leading to the bone, the fibula was found in a carious condition nearly all along its shaft. The patient, a laboring man, had been entirely unable to work for many months.

I decided at once to exsect the diseased bone.

Operation.—The patient, being placed upon a solid table on his left side, and chloroform being administered, I made an incision nine inches long in the direction of the shaft of the fibula down to the bone. The periosteum was found thickened though otherwise healthy, save in the numerous perforations through it corresponding to the sinuses communicating with the surface. A slit was therefore made through it almost as long as the incision through the external parts, when it was readily pushed aside, leaving the bone exposed.

An instrument was then used which I had invented on purpose to facilitate the passage of the chain-saw under the bone and which I have named the chain-saw conductor.

It was made as follows: A piece of steel wrought into the shape of a needle, but about seven inches long, and thick accordingly, with a straight shaft, but curved very much at the

point. An eyelet hole in the perforating extremity received the ligature which was used in drawing the saw through. The point of the instrument being thrust through the tissue very close to the bone, appeared on the opposite side of the puncture conveying the ligature which was secured, and the conductor withdrawn.

The instrument made a sufficiently large opening to admit the passage of the chain-saw with ease, as well as a piece of chamois leather, which was conveyed along with and between it and the soft parts for their better protection againgst laceration by the saw. This being arranged, there was nothing left but to divide the bone, which was done in the same manner, both above and below, seven inches apart, when the intervening section of bone was taken away.

A roll of lint was then applied in the wound, a roller tightly over the leg and foot, an evaporating lotion of one part of alcohol, to ten of water, was used to keep the dressing constantly wet for the first five days, and spirits of mindererus freely administered.

At the end of this period the cold applications were discontinued, the roller removed and poultices applied to the wound.

No burrowing matter ensued, the wound was free from inflammation during convalescence, and in three months after the operation, the patient was enjoying comparatively good health with the leg almost as useful as ever, the bone having been reproduced, or some solid substance answering as well.

The lint was permitted to remain in the wound for two weeks, when it was removed.

Remarks.—I am aware that the plan of leaving a piece of lint or any other foreign body in a wound of this kind, is contrary to the practice of surgeons of this day, and that it would by many be considered very reprehensible, because it is the wish of surgeons generally to have such wounds heal as nearly as possible by first intention, whereas this method most effectually prevents it.

I am convinced however, by experience that it is the true method of conducting the after-treatment of these cases because

my success in the cure of such patients since I adopted it, has been much greater than before.

I deny, that atmosphere admitted into wounded bones or joints is in any way injurious, so there is no objection to having the wound open on that account, and a roll of lint pressed tightly against the cut surface of the soft parts by means of a roller applied over the limb, not only prevents secondary hemorrage from the numerous small arterial branches which are frequently wounded in these operations, but it is the means also of condensing the tissues on the cut surface and thereby interrupting the passage of purulent matter from the wound into the surrounding structures; but above all, it keeps the wound freely open for the escape of purulent matter, or even any spicula of bone which may by exfoliation subsequent to the operation, require a free opening for its removal.

In many of these cases where a large section of one of the long bones has been removed, and the reproduced tissue occupying its place is slow in hardening, I use accupuncture needles, or a small drill, by which numerous holes are made into this substance, which is often found at the expiration of three months, of less than cartiligenous hardness. But in this state I have frequently been surprised and highly gratified at the rapidity with which hardening would take place, after the drilling was begun.

The idea of this practice occurred to me in consequence of the ingenious experiments upon animals for the cure of pseudarthrosis, made by Prof. D. Brainard of Rush Medical College, some years since, in which the practicability of hardening the callus connecting the extremities of bones by a similar practice was fully demonstrated, and which is destined to exercise considerable influence upon the practice of surgeons, seeing that the operator need not hesitate to remove diseased bone since he has learned the mode of quickening nature's efforts at reproduction, when she appears either too slow in her work or stops altogether.

It becomes a question with me whether bone could not frequently be produced, and the tissues always hardened by this process, even in parts where no bone had existed before.

Nearly all the tissues tend to bone as age advances; and rheumatic inflammation, and injuries often produce ossification of ligaments.

As I have already published my views at length upon this subject, I will add no more to this communication.

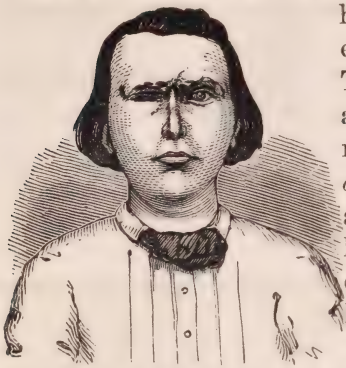
ARTICLE 4.

OPERATIONS FOR THE RESTORATION OF THE NOSE.

Rhinoplasty, the name given to operations for restoring the nose when lost, or improving its form when deformed, is carefully described in all recent works on operative surgery. Yet it is performed by but few surgeons, and not demanded by one patient in ten of those to whom it is applicable, from its not being sufficiently well known and favorably appreciated. Velpeau, in his Operative Surgery, speaks of it in a manner calculated to discourage its repetition, calling it "patching," and saying that it is only in some cases that it offers all the regularity desirable. Under the belief that it is extremely liable to failure, and not very satisfactory when successful, I have several times dissuaded patients from having operations of this kind performed, wherein I now believe good and satisfactory results might have been obtained. In cases of disease the chance of failure is greater than where the deformity results from injury. In these latter, with suitable skill, it will rarely fail.

The method to be chosen should be adapted to the peculiarities of each case. When the point of the organ has been lost, taking the tissue of repair from the forehead is best; when the nose has settled from ulceration of the bones and cartilages, the method recommended by Mr. Ferguson, analogous to that of Dieffenbach is sufficient.

In illustration of the former plan, the following case is given. The figure is from an ambrotype, and represents the appearance of the nose as restored with fidelity:



Case 1. John Cullen, an Irishman, aged 23 years, had his nose bitten off and one of his eyes gouged out in an affray, on Thanksgiving day, 1856. Nearly all the cartilagious part had been removed, and the portions of the *alæ nasi* remaining were drawn asunder so as, together with the loss of the eye, to give to the countenance an expression quite hideous.

The operation was performed May 12, 1857, by bringing down a flap from the forehead in the usual manner.

The flesh was carefully adjusted to the denuded edges, and the edges of the wound occasioned by its removal brought together by stitches. The stitches employed in fixing the flesh in its place, were removed on the sixth day. Compresses and adhesive plaster being resorted to, to prevent the danger of displacement. The connection of the flap was divided June 20, the cicatrization at the points of attachment being, at that time, complete. The figure was taken three months after the operation. No one not aware of what had been done would be able to perceive at all that the nose was not natural.

Case 2. Miss S., a very interesting young lady eighteen years of age, consulted me on account of a flatness of the nose, produced by a blow received in early childhood. The bridge of the nose was almost on a level with the face, and the lower part of it much turned to one side. One nostril was quite closed by the deviation of the septum.

The operation performed consisted in first dividing the septum and then carrying a narrow bistoury between the skin and the bones of the face from within the nose, so as to separate the tissue on the dorsum and sides of the nose, and from the cheek as far as the *infra orbitary foramen* on each side. The skin thus loosened was then transfixed from the inside with two needles armed with double ligatures, which were tied on each side

over a piece of wood, the two pieces being thus approximated so as to raise the skin to the desired point. This operation succeeded perfectly, and the result was all that could be desired.

Case 3. Recently we have performed this operation on a young man whose nose had been shockingly mangled by the bite of a dog, and which, although treated with care at the time, was so irregular after cicatrization, as to cause him to desire an operation. Although but recently performed, the result of this operation seems favorable.

There is one point, however, to which I would call attention. When the stitches require to remain many days they partially cut out, (even when silver wire is used, as was done in this instance,) and allow the skin to settle down. Cicatrices are also left, more or less unsightly. To obviate these inconveniences I removed the wires and kept the pieces of wood on each side of the nose in place by little springs of steel wire, like the *serre fine* of Vidal. This succeeded perfectly, and by proper precautions may be made to supersede the stitches altogether. Possibly they might be so employed as in case of ulcerations to prevent, in some useful degree, the deformity, and thus render any operation unnecessary.

ARTICLE 5.

OPIUM:

ITS INFLUENCE IN FEBRILE, INFLAMMATORY, AND OTHER DISEASES.

A PRIZE ESSAY. BY A. S. HUDSON, M. D.,

Prof. of Physiology, Pathology, and Clinical Medicine in Rush Medical College.

Editors of Chicago Medical Journal:

Gents: An essay of mine, under the above caption, having been honored with acceptance and publication by the State Medical Society, appears in the transactions of that Society, imperfectly printed. Not being in the city at the time, I could

not read or correct the proof. If in your journal you can spare the room, I would be glad to have it re-printed in a more intelligible form.

Yours, respectfully,

A. S. HUDSON.

Give anguish a tongue, and reason to a remedy,
And they will commune together in blissful concord.

To calculate the worth of an agent by the same rule from which Napoleon estimated the worth of a man, namely, by what he can do,—it must conceded that opium is the giant of the materia medica. It is one of the oldest remedies of the catalogue. Among the changes of professional fashion, or of medical caprice, none has maintained the perpetuity of a large respect equal to opium.

It has many friends, but few enemies. It has many capabilities, but few defects. It has mighty powers, yet its mischiefs, through error and depravity of usage, are among the list of minimums.

Ethereal theories in medicine, and extravagant systems of practice, have, for the last few centuries, arisen every fifty years; opium finds a ready niche in the newly created temple of each, and quietly lends, as ever, its faithful charms to the suffering world. Opinions change, and doctrines pass away, but opium is still respected as lord of physical woe, and held ready for the oft arising pang of sharp emergency.

In discussing the therapeutics of opium, it may be systematic to divide the subject under three natural heads.

1. The physiological action of opium.
2. The general therapeutics of opium.
3. The powers of opium in febrile and inflammatory diseases.

1. *The Physiological action.*—Opium is one of those agents whose energy is not often obliterated by mental action, nor augmented by the coadjutive unction of faith. Its medical properties depend wholly upon the inherent potencies of itself. Morbid action and intensified mentality may modify its forces, but they do not obliterate them.

It acts with the same fidelity upon the unconscious infant, as in the vigor of manhood writhing under throes of pain, or in the time-furrowed system of the aged and demented.

In minor-sized doses, opium is defined as a stimulant, augmenting the motion of the blood, the mental faculties, the nervous tone, and induces a feeling of muscular comfort.

In a larger dose, the pulse is lessened in number, but its volume is increased, respiration diminished. The stomach frowns upon, and objects to its natural duties, and often acts in reversion by emesis. A dull and lazy pain attends. The pain in the stomach is a sort of constriction or corrugation, by which its walls seem to be drawn together, or strongly compressed. The tongue and fauces are dry, and there is a cutaneous pruritus. The mental faculties enjoy a serene pitch of self-entertainment, or a prepossessing degree of repose. Sorrow has fled, and the twinge of pain is wrapped in the magic spell of physical felicity, never again to return, or to return with diminished consequence.

The third degree of operation is a toxic influence. It paralyzes the respiratory muscles, respiration is labored and even lost. There is stupor, and contracted pupil, livid countenance, and muscular relaxation; giddiness.

Constipation is an effect that follows any sized dose.

Pereira states that opium is an aphrodisiac, and augments the venereal propensity. So far as my own observation extends, in studying this effect upon myself and others, I must, in all deference to the great English author above-mentioned, enter the averment of a stout denial; and state to the contrary, that it invariably allays even natural salacity. This point is further sustained by the testimony of opium eaters, as the "Baltimore Bard," and a writer (a reclaimed subject) in the *N. Y. Medical Times*, for 1849. To this excellence of opium—the non-excitation of the sexual functions—we must attribute much of its curative ability in some inflammatory diseases we shall specify anon.

Opium is a cerebo-spinant, and acts, according to Flourens, on the cerebal lobes; while belladonna operates on the corpora quadrigemina. The kind of influence displayed over the mind

by this drug, is by no means uniform. That blissful revery so highly enjoyed by the opium eaters, is an ecstasy which I am disposed to believe follows its use in only about half the cases; the other half will experience the hypnotic and anodyne effects, but no special mental elevation. There is, therefore, no danger of this latter half becoming intemperate with opium. Nor does the truth of the statement, that the habit of consuming the drug always requires the victim to increase the size of the dose from month to month to maintain the same feeling of supreme felicity, reach any further than perhaps half the cases. The individual mentioned in the *N. Y. Medical Times*, writes thus of himself: "After commencing or recommencing the use of opium, I always reached the full amount which as a *habit* I ever used, that is, either an half an ounce of opium or a quarter of an ounce of morphine in a week." Such also is the case with the only opium-eater with whom I have met. She has taken morphine for six years, and by a dose once or twice a day, she consumes about half a drachm in a week. She has recently abandoned the habit, by making a daily dimunition of the size of the dose.

There are many idiosyncrasies which rest opposed to the friendly influence of opium. Some patients, mostly females, are kept awake through its action, instead of enjoying the somnific repose it promises. This minor objection can be remedied in two ways. The coveted sleep, which stands off like a ghost at arms-length, comes at last, but at a late hour. It is belated, and may be hastened by giving a larger dose, or giving the same dose a few hours earlier. To increase the dose one-quarter or one-half the usual amount, may generally be done without prejudice to the case.

Retention of the urine, through seeming paralysis of the vesico-genital organs, is a frequent result of a full dose; it however, passes away in six to twelve hours.

The next and most abiding objection to opium, is nausea, which is a secondary effect of its operation. This is the most vexatious with female patients, and arises in from three to ten hours after its ingestion. Some will vomit and retch for many hours, while others again are only slightly

sickened. As a general rule, individuals who use tobacco, are exempt from the effect of opium. The evil property is supposed to depend upon the narcotine it contains. Accordingly, Mitchell's Therapeutics gives the subjoined formula, which the author, with much scientific looseness of expression, states to be without narcotine. R. Sixteen grains of pure morphia, eight grains of crystalized citric acid, are to be dissolved in an ounce of water, and just enough tincture of cochineal to give it a pink tinge. Dose, 5 to 25 drops.

He appends the random praise that "I have found it a very pleasant opiate." Query? What becomes of the narcotine here? Is it impotently neutralized? Is it expelled? He does not say; nor does he state that his preparation is free from narcotine and from nauseating qualities. Orfila at one time declared narcotine to be inert, but afterwards thought it acted like morphia, and had an operation remarkable and peculiar.

Bally asserts that in a solid state it is inert, for 129 grains given at a dose produced no obvious effect. Dr. Roots gave scruple doses without injury, but from its bitterness employed it in intermittents in place of quinine. The truth is, I believe narcotine possesses but little activity, and I presume the first experimentors with it, employed an impure article. (Pereira.)

2. *General Therapeutics of Opium.*—The principal property of opium, and the one for which it is mostly used by the majority of practitioners, is its anodyne or hypnotic characteristic. Without lisping a word tending to lessen the high estimate of this quality, yet, when contrasted with its other powers, it is, if any thing, the inferior. Opium is not merely a soothing comforter, beguiling turbulent agitation into reluctant sleep, and thus acting as a palliative, but it is an instrument of veritable cure. It not only abates the sting, but it removes the thorn; while it carries life's struggling vessel in tranquility over a heavy sea of disease, it will often, at the same time quell the tempest. Thus, in gastralgia, and in contorting colic, a large dose brings sovereign relief, and thwarts their return for many weeks or months, or perhaps never to return. But should they relapse, the same happy effects may be confided in again. And here let me say, for the treatment of these assassin-

like maladies, that opium has no rival. We challenge the profession to exhibit its master, either for temporary or perpetual relief. Generally, from first to last, it is the remedy. Bleeding, warm bath, nauseants, may assist its action, but they are mere adjuncts and subordinates. These are among the cases in which the physician does not leave the patient till he is convalescing.

Your honorable Society virtually asks the question, "Is opium a febrifuge, or does it possess antiphlogistic properties?" The reply to this question will be considered in the last part of this dissertation. But let us first inquire, *Is opium an alterative?* Does it effect such a changed state of action as to bring it under the definition of an alterative? We claim it does; it is an alterative of no despisable energy. Mr. F. C. Skey (*London Lancet*, Feb., 1855,) makes the following remarks on the efficacy of opium in the treatment of chronic ulcers in the legs: "I venture to attribute to this remarkable drug, (opium) the property of promoting the formation of healthy granulations on a surface that, notwithstanding all the previous appliances of surgery, is yet flat, pale, and ungranulating. Now, there is no example of the power of opium to effect this more conclusive, or in which there is more work to be done, than that form of disease of which I am speaking—which consists of a gap formed on the surface of the body, of greater or less depth and diameter, and in which there exists not even a trace of curative action—and yet the object is accomplished by means of this agent, and often with remarkable celerity."

Mr. Skey beholds similar properties in this medicine in the treatment of senile gangrene, which is a painless disease. He says it maintains the balance of the circulation. "How much of meaning is attached to these words! How many affections of the bodily frame may not be brought within the range of this definition! Take the common chilblain; what is it but a local congestion of blood caused by defective capillary power? there is no better remedy than opium; cold feet, as characterizing a person or a constitution, is equally relieved; senile gangrene, the result of arrest of the capillary circulation, or its

apparent opposite; local hyperæmia; these diseases, one and all, manifest a loss of local power, a failure in the balance of the circulation. The influence of opium in such conditions is that of promoting a genial warmth over the system, a glow exactly resembling, in fact identical with, that produced by the re-action on the system which is caused by the cold bath. *It is local health*, and the sensation is most agreeable. * * * * * * I have related to you the particulars of several cases of chronic ulcer in which recovery was attributable to the medical properties of opium, and almost to opium alone. The character of these ulcers strongly marks the inactivity of their nature, and hence the class of society to which they belong. They are marked by a flat base, which indicates by its pale, flabby uniformity of surface, that no reparatory action has approached it. It is often surrounded by a thick, high ridge of lymph, covered by unhealthy integuments. The depth of the ulcer, which may be seven or eight lines; is caused partly by the ridge, and partly by the excavation of the ulcer below the natural level of the healthy integuments. So long as this ridge exists, although granulations may form, and will form from the date of the employment of the opium, yet cicatrization will never complete the process of cure unless the wound or ridge be absorbed. Now the action of opium is not alone exhibited in the development of healthy granulations, but in the entire complement of such actions as are required by the sore, viz: the formation of new material and the absorption of the old."

We have other authorities on this head; statements which, like the above, by their conceded weight of authority, carry with them a breast of proof, which well supplies the place of facts, and shortens the line of argument. After ample opportunity to render his observations in syphilis authoritive, M. Rodet comes to the conclusion that it is an error to regard opium as a mere succedaneum of mercury; it acting, in fact, most efficaciously in just those cases in which mercury is of least use, and *vice versa*.

When in chancres there is a manifest tendency to phagedena, or they are irritable and painful, mercury should be rigidly for-

bidden, while opium is always useful in assuaging the pain, diminishing the irritability, and modifying the suppurative process. But the case in which truly remarkable effects are produced by opium, and in which it acts almost as a specific, is that of *phagedenic, serpiginous ulcers.*

M. Rodet, prior to resorting to large doses of opium, treated them by a great variety of means, without any satisfactory result. The cyanide of potassium, although incapable of healing them, effected considerable amendment in their appearance. The iodide of potassium was found to be of no avail; and those who believed in its efficacy have confounded those primary ulcers with other serpiginous ulcerations, which much resemble them in appearance, but which appear during the tertiary period of syphilis. As to mercury, not only is it useless, but mischievous, and should be rejected. When the ulcers decidedly manifest these appearances, opium exerts a most beneficial effect upon them. If some obstacle impedes the progress of cicatrization, the opium does not operate against this which has to be removed by other means; and the neglect of this precaution may lead to the loss of much time, and the taking of large unnecesary quantities of opium. The opium must not be given in too divided doses, as if the stomach be kept too constantly under its action, digestion is interfered with. The entire daily quantity should be taken at two doses, morning and evening, leaving a sufficient space of time after meals to secure the completion of the digestive process before administering it. If this point is not attended to, indigestion, accompanied with nausea, vomiting, diarrhœa, sweating, prostration, a cephalalgia, etc., comes on; compelling a temporary cessation of the remedy, and reacting unfavorably on the ulcer. Sometimes, notwithstanding the precaution, the stomach gets fatigued, and digestion is indolent and accompanied by nausea. This inconvenience is easily avoided by recommending the patient to take light wines with their meals, proportionate to the quantity of opium employed. Thus, suppose the quantity of opium taken daily amounts to fifteen grains or thereabouts, from a pint to a quart of wine should be allowed. Constipation, so common a consequence of taking opium, is almost cer-

tainly avoided by this means; and an excess of sleep, is quite exceptionable. (*American Journal*, Oct., 1856.) These cases abundantly demonstrate that opium is an alterative.

In *Typhoid Fever*, opium is employed by most practioners in various forms, to meet numerous objects which each one regards it capable of filling. Dr. Graves, of Dublin, treated his patients with much regularity and a similar uniformity with hydrarg cum creta, and Dovers' powder. Success flattered the course. But believing that mercurials exert little or no necessary control over typhoid action, to lessen its grade, or shorten its course, and believing also that the beneficial portion of Graves' treatment was due to the un-accredited opiate, I have for several years in my practice, abandoned the one, and centered my confiding trust upon the other. Dovers' powder or morphia, and brandy, therefore constitute the principal medication of some twenty-five cases of this disease; two of which proved fatal. Hence it is more than probable, if practitioners would choose to let their patients lean upon it in typhoid fever, it would take the place of many other remedies, and repay its selection.

In inflammation of the neck of the uterus, which is essentially a local disease, and frequently of a chronic character, opium, in its treatment, is competent to play a conspicuous part. In aggravated cases that have advanced to ulcerative conditions, local escharotics are among the first remedies, and opium is the second. But many of them present a mild form, and exist short of erosion, when local caustics are useless, or at least unnecessary, then opium comes in as the strong hold to do the work of an unquestioned remedy.

Several of these mild cases I have treated almost exclusively with this drug, and sometimes adding an occasional blister. Opium not only lays a gentle hand upon painful vigils, but I cannot avoid the conviction that it acts as a revulsive upon the uterine circulation, as external cold is believed to act upon the cerebral circulation. It was upon this ground that we entered our opinion that opium was adverse to a full vein of venereal orgasm.

3. *The powers of Opium in Inflammatory and Febrile Diseases.*—From March till May or June in this latitude, there are frequent catarrhal affections of the throat and air passages to be met with and treated.

Some of these attacks introduce phthisis, pneumonia, obdurate bronchial disease, or inflammation of tonsils and fauces; the latter of which if not at once abridged, may continue from six to thirty days. Take then that group of symptoms which generally represent the generic outline of each. The patient, from exposure, fatigue, or atmospheric vicissitude, has had a chill; he is stuffed up, breathes with an embarrassed or wheezing respiration; has a sense of tightness across the chest, and tendency to cough; or perhaps, he has a red and painful sore throat. He may have head-ache, eyes red and watery, schneiderian membrane thickened, and discharges an augmented excretion; in other words, the patient declares he "has taken a violent cold."

Now to mend this state of things without delay, a large dose of camphorated Dover's powder—ten to fifteen grains—(of which one quarter is opium) taken at night for three successive nights, will blench nearly every case. They are at once relieved, and in from three to six days they are as well as ever. They have no need of purgatives, emetics, antimony, mercury, or other alternatives. It is proper to say, the febrile action of many of these cases will be more happily met by preceding the opium with veratrum.

A course of treatment identical with this was pursued by Dr. Henry, of Pekin, Ill., many years ago. To his original mind, bold hand, and athletic judgment, the profession is made a debtor for a certain amount of knowledge of the powers of opium, hitherto unknown. Dr. Henry was the first who presumed to treat intermittents with this agent as the chief remedy. Until he published the results of his observation, no practitioner dared to give but a grain or two of opium at a dose; and when he announced the economy of giving 4, 6, 8, and 10 grain doses, the medical faculty were ready to scream with terror at his temerity. His practice which stood out with such a touch of boldness, was characterized by as remarkable

a swiftness of success. His patients recovered with an unprecedented celerity. He not only demonstrated the folly of giving mercury, and the fallacy of its action in intermittent and bilious fevers, but he made a sound reduction in the amount of quinine employed. Yet at the time these observations were published, he continued to give calomel with opium in these fevers, as "a convenient purgative." Confronting the old idea of waiting till the paroxysm of chill and fever had passed, he lost no time in administering relief, he gave his remedy as soon as he arrived to the bed-side of his patient.

We quote one case of "Congestive Intermittent" as an illustrative sample: I was called to Mrs. S. She had been taken the evening before with what she supposed to be a simple chill and fever. The chill had lasted some six or eight hours, accompanied as she expressed it, with a burning fever, with a feeling of freezing all the time, with the sensation of a loaded wagon runing over her breast. She was lying in bed comfortable, and free from fever, as she supposed; but expressed herself alarmed for the consequence of the next chill, which was expected in the course of two hours. On feeling her pulse, I readily detected that peculiar, but indescribable pulse, always found during the intermission in this form of disease. She said she felt tired, and when she attempted to sit up, became sick at her stomach. I was satisfied that the next paroxysm, from the general appearance, would prove fatal, unless prevented, or greatly mitigated, and there was no time to be lost. Accordingly, I administered in a little coffee, five grains of quinine with five of opium, and left five more of quinine and two of opium, to be given in six hours, and directed hot teas: but before leaving the house she complained of feeling cold, and commenced breathing quick and laboriously. On going to the bed-side, I found her hands cold; pulse small and rapid. The powder had only been swallowed fifteen minutes, not long enough to produce any sensible effect on the system, still I had every confidence it would moderate the paroxysm. I applied a strong mustard poultice to the stomach, which acted promptly, improved the breathing, and by this time the powder began to act. The pulse became

slower, and more distinct, drops of sweat showed themselves upon the forehead, and in one hour from the time the dose was administered, she was perspiring freely, and said she felt better than she had for two days before; and being satisfied she was safe, I retired for the night, repeating the direction to have the second powder taken at the end of six hours. The next morning I found her entirely comfortable; had not slept much during the night, but felt disposed to sleep then. I directed a dose of oil, which operated in two hours very freely, when I repeated the quinine in five grain doses, without opium, and left my patient convalescent. The next day she was up and doing her work.—*Ill. and Ind. Med. and Sur. Journal, Dec.*, 1847.

Whoever has studied intermittent fever, or has experienced in his own person an attack, knows it is, as McIntosh says of Rheumatism, "a disease very unpleasant to bear." It musters an army of evil sensations, and each sensation is armed with a pointed spear of pain. Opium will not only vanquish every belligerent pang, but it well nigh clears the field of miasmatic marauders. It abates the order of march of this morbid action. These powers are exerted, says Dr. Henry, through the sedative action of the drug, given in four to eight grain doses, every six to eight hours.

A cautious consideration should steady the hand when opium is exhibited to infants. Dr. Thomas D. Mitchell, in his Materia Medica and Therapeutics, published in 1850, employs this singular language. He says: "But I desire to express my opinion in reference to the administration of opiates to infants; and I mean to do so emphatically. I take the position that an infant under a year old, never requires the medicine internally if at all. It should never be given to such tender subjects on any pretext whatever; first, because it is not necessary to their health or comfort, and second, it is truly a poison to their tender tissues."

This much we quote only to take a mammoth exception to it, and to place his injunction at the north pole of our medical esteem. Every practitioner must feel, at the perusal of this detracting sentiment, that it puts to torture countless facts of

almost daily occurrence. Dr. Mitchell must know that infants are often sick, as well as adults. That like adults they suffer pain, and their claim upon medical science for speedy relief is equally imperative. Now, to deny a child the most grateful means of relief in our hands to give, because it is little, and unable to defend itself, is a trangression of a rule of humanity, pays a poor compliment to our profession, and demands it to pause, and make here a beggarly stand. If an infant is tender and susceptible, it is therefore more susceptible to medicines, a responsiveness which holds to the advantage of the discreet physician. It then requires a less dose. Shall homœopathy, which is puffed with a monopoly of doses intensely divided, be furnished with a driveling argument, by reason of this repulsive mode of standing back? Can a child so small and tender, that even a giant remedy may not be reduced in size, exactly fitted to the infantile state? No! We answer in the austerity of scientific confidence, no! If there be a microscopic disease, why not be rational, and give a corresponding microscopic remedy? If there are nice points to weigh while prescribing for infants, though it be the thousandth or ten thousandth part of a grain, is it not the business of the skilled physician to calculate them? Any dolt can prescribe a coarse dose for a plain case, but refined distinctions, based often upon narrow postulates, characterize the labors of the scientific physician.

Dr. West, one of the highest authorities on diseases of children, hesitates not to give opiates to infants under the same indications which necessitates their use in the adult. Infants from a few days to a few months old, are frequently liable to sudden fits of colic. The little sufferers will cry and writhe under it most piteously. Sage tea, a little brandy, or other carminative, will relieve these cases at first, but after several exhibitions they become inert and worthless. The child then suffers on, unless the case be laid under the mastery of an infallible opiate. Contrary to Dr. Mitchell's assertion, that "they never require this medicine either for health or comfort," the truth is painfully summed up in the innocent creature's bitter cries, which if not relieved, will cry for hours, or

for a whole night. None will say, but that in this state it is a long way removed from a state of comfort, and a remedy is demanded. Opium will as certainly bring relief as that it is given. Here, then, by the failure of other means, the nature of the case decides in selecting this drug.

Out of a hundred cases that might be given, let me detail one, of a kind not the most common. Some two years ago, I found myself, by accident, in company with an infant eight or ten months old, which was irritable, peevish, and cried to excess. Every trifling displeasure or cross was a large provocation to cry. It would cry at night to the great detriment of its mother's repose. The child was thin and pale, but had no other appreciable error of health. Believing it was unwell, and the crying a symptom of its distress, I proposed to repair its fretful disposition by the agency of medicine. Six doses of morphia were left, one to be taken every night or two, as the case required. It was about two weeks in consuming the remedy. It improved from the ingestion of the first dose; and then got better, got fat and good natured. The mother afterwards expressed her regret that she did not obtain the medicine at an earlier period.

Dr. Mitchell says, secondly, (of opium in infancy,) "it is truly a poison to their tender tissues." To entitle this remark to acceptance, it should be accompanied with a reasonable sum of proof. It is equally dictatorial with the preceding one already discussed; similarly extravagant, and betrays a more startling disregard of the present state of toxicological knowledge. If Christison and other writers on poisons are to be believed, opium is *not a tissue poison*. Arsenic, corrosive sublimate, and the mineral acids, are, to use his expression, tissue poisons; they destroy the integrity of the texture of a part; while opium, strychnia, and hydrocyanic acid, are cerebro-spinants, or poisons which abolish the functions of an organ, but they meddle not with the mechanism of the tissues. "In poisoning by acrid substances," says Pereira, "opium is used with advantage to lessen the susceptibility of the alimentary canal, and thereby diminish the violence of these local irritants." There is palliation for such hap-hazard usage of language as that

employed by Dr. Mitchell in the inexperienced extempore speaker, but to find it in the text of the undisturbed deliberations of a writer, deters forgiveness, and entitles them to the disdain of ascetic censure.

A convenient and safe rule for the administration of opium to infants under a year old, is to give a drop of officinal laudanum for every month in the child's age. But elixir paragoric is the better, and the generally sufficient preparation for the first few weeks of the child's existence, should an opiate be needed.

The large doses of opium employed by Dr. Henry, did not bring with them the corresponding increase of evil effect of the drug. The consequent constipation of the bowels and nausea were in no degree augmented above those effects from ordinary doses. While a state of morbid action furnishes an occasion, or a reason, why such large portions are borne with advantage, yet it does not follow that they would prove poisonous in a state of health, excepting in extremely rare cases, wherein there is an idiosyncracy against it. For adults the poisonous dose does not appear to be reached much short of twenty grains. A few may be poisoned with a less dose, but many will escape the toxic influence of a much larger quantity. "A woman desired to get rid of a useless husband laboring under a disease regarded as incurable. She gave him twenty grains of opium at a dose, yet was most grievously disappointed. A drenching perspiration came on, followed by a profuse urinary evacution, and he was cured."

The *Annals de Hygiene*, for Jan., for 1845, furnish a more remarkable case. "An apothecary's assistant, aged twenty-four years, swallowed at noon fifty-five grains of acetate of morphia in two ounces of gum water. He then sent a letter to his master, informing him what he had done. The master came half an hour after, and administered, with difficulty, and without effect, two grains of tartar emetic, followed by an ounce or two of sweet oil. Up to this time the chief symptoms were slight giddiness, which soon vanished, and the lad went out with some companions and drank half a bottle of beer. At the end of an hour and a half he complained of

more giddiness, a peculiar feeling of the limbs, and a tendency to sleep. At the end of two hours he was taken to the hospital, put to bed, and made to take three grains of tartar emetic and twenty-four of ipecacuanha, in two doses, with an interval of half an hour. Vomiting could not be affected without the aid of an irritant to tickle the throat, and then it was too slight to do good.

The aspect of the case grew more alarming, till at length he fell into a profound sleep, and seemed like a drunken man. During all this the breathing continued quite natural. A pound of blood was taken from the arm, soon after which he rallied a little, and complained of a difficulty of swallowing. The pulse, which up to this time, was soft and frequent, became more full, hard and slow, and there was troublesome itching of the forehead, nose and lips. Various external irritants, and agitation of the whole body were resorted to in vain. The face was distorted, the eyes dull and sunken, the entire surface of the body of an icy coldness. At the end of three hours iodine and iodide of potash were administered, and vomiting ensued. Strong coffee frequently given, had a like effect. At the end of five hours, a third bleeding was performed, strong coffee pretty freely taken, and two blisters applied to the chest. From this time he began to improve, and converse a little. At the end of six hours he inquired whether he was not very ill, and wondered that he had survived the monstrous dose of fifty-five grains of acetate of morphia. In two or three days he was well."

The following recent case is worthy of note, and of quotation: Dr. Hays related to the college the particulars of a case in which a child, not quite six years old, was given a powder containing seven and a half grains of opium, with the same quantity of prepared chalk, the former having been substituted by mistake for rhubarb. Dr. H. did not see the patient until fourteen hours after the powder had been administered. He was told that the child, after taking the medicine seemed much excited; this was followed by restlessness and drowsiness, which continued at the time of Dr. H's visit. No vomiting had taken place. The narcotism was at no time very

profound. It gradually wore off, and at the end of three days had entirely disappeared.—*Amer. Jour. Med. Sci., April*, 1859.

In comparing the powers of opium with morphine, they are usually stated to stand as 1 to 4, or that a grain of morphia has four times the strength of one grain of opium. I am led to question this position. In the absence of positive data by which to determine, I can only offer an opinion. Aside from this rule, if asked my judgment, drawn from daily observation of the two articles, I should say they stood as 1 to 2. This view is sustained by the statement of the opium eater, mentioned in the foregoing pages. He says: "I always reached the full amount which as a habit I ever used, that is either half an ounce of opium, or a quarter of an ounce of morphine per week."

Before leaving the posology of our subject, it is in order to discuss the incompatibility of opium with other drugs.

Opium and quinine are many times in western practice, mingled together in a case, and in the same prescription, or even in the same dose; and that, too, without any fear of perverting antagonism. Recently, however, an article in an Eastern journal, states what the writer regards as an incompatibility between these agents. Looking into the phenomenon of natural sleep, he found the cerebral vessels always in a state of congestion; that opium induces sleep by bringing about this same state of congested cerebral vessels. Opium, then, induces sleep by an action which is but the imitation of nature—a natural sleep by artificial means. Quinine, on the other hand, induces the opposite state of the cerebral vessels. A plethora of them, according to this writer, is removed. It therefore, like coffee, diminishes the tendency to sleep. Admitting the statement to establish this incongruity of operation, that quinine does arrest the soporific effect of opium, the fact is void of objection, though they be given in conjunction for the purposes of anodyne, alternative, or sedative effects.

Question? In view of this conflicting action, may we not glean from it a useful gem of practice? Instead of its being wholly an obtrusive feature in the premises, may it not prove of eminent service? Why will not the addition of quinine to

an opiate, diminish the dangers of that opiate, when given to infants, lessen our trepidation of employing it, and thus extend its usefulness in that class of subjects, by antidoting one of the dreaded properties of the drug, viz: the tendency to stupor.

Among the recent movements in the progress of medical practice, the heroic plan of administering opium in *puerperal fever* is the most decisive. Dr. Barker, of New York, speaks of it in terms of high commendation. He regards this fever as differing from most other inflammations—as being a zymotic disease, and which bears a kindred identity with erysipelas. That, like erysipelas, it often springs from contagion, and that prophylactic measures secure to the patient much safety, which peculiarity widely separates it from a simple inflammation. He does not look upon opium as *the* remedy in this disease, nor does he employ it because the patient has puerperal fever, but because there is in this terrible plague a clear indication for its use, which indication is rarely absent. He says: An important indication in the treatment of this disease is to control vascular excitement and nervous irritation. As an arterial sedative, well adapted to reduce the excitement of the vascular system, inasmuch as it does not depress the vital powers, Dr. B. recommends the veratrum viride. To allay nervous irritation he is in favor of large and repeated doses of opium.

It is astonishing to see to what an extent patients will tolerate opium, where the peritoneal lesion predominates. When opium is acting benficially in such cases, there will be a reduction of the frequency of the respiration, and also of the pulse. If opium is pushed to the point of incipient narcotism, and the respirations grow slower without a corresponding decrease of the pulse, the remedy is not acting beneficially, and should at once be abandoned. Illustrative of an occasional necessity there is to reduce the pulse, while you at the same time continue the effect of the opiate, he relates the following: "The patient had been freely impressed with opium, which had reduced the number of respirations to a low standard, while the pulse continued elevated to the pitch of 120 or 130. This disproportion in two vital movements began to indicate

a cyanosis of blood, and depict a livid countenance. In place of the opiate, veratrum was given which lessened the cardiac to a normal correspondence with the respiratory movement. The dusky features disappeared, and the patient recovered."

In the decline of an epidemic in England, Dr. Ferguson began to rely upon ten grain doses of Dover's powder in the outset of this disease, or whenever a parturient female began to complain of a pain in the abdomen. It removed the suffering, and with a few exceptions, arrested the disease. Permit the report of a single case observed lately. Mrs. K., two months advanced in gestation, had free uterine hemorrhage for a day or two, from supposed mechanical injury of the organ. On the mornings of Tuesday, Wednesday and Thursday, she had vigorous chills, followed each day with a smart fever. Visiting her Thursday at 3 P. M., she was found with an ardent heat of skin, thirst, nausea, and vomiting, painful and tender abdomen, head-ache, and a pulse of 150 per minute. Twenty grains of camphorated Dover's powder, containing about six grains of opium, were immediately given. She continued to retch in efforts to vomit for three hours, when three doses of veratrum were given, hourly, with relief to the stomach. The next morning the patient was found sitting up, free from fever, free from every distress, and from tenderness of the bowels, with a pulse beating at 100. A few more doses of veratrum and opium completed her recovery.

Regarding the publication of Dr. Henry's views, as adding the property of affluence to our knowledge of opium, and feeling a faltering perplexity with the usual bootless, and even contradictory lines of treatment laid down for *dysentery*, I began eight years ago to employ opium in this disease.

From its diligent efficiency sprung a ripening satisfaction, which gave a proneness to rely upon it, with only such varying interruptions as special indications might require. Generally five or six grain doses of this drug, in the form of camphorated Dover's powder—the camphor being substituted in place of the ipecacuanha—were given in the outset every night, or every night and morning. This at once subdued many and many a case which, under other plans of treatment must have painfully

continued for many days, or many weeks. Twenty-four hours to four days, is the ordinary range of duration of dysentery thus treated. Whereas hundreds of accomplished practitioners will testify to a frequent and troublesome duration of two to four weeks, under the usual methods of treatment.

Neither Dr. Henry nor any other writer within my knowledge, had led the way, or authorized us to address dysentery solely by the ruling powers of opium. But though without the prestige of precedent, the course was legitimately deducible from known truths, and from Dr. Henry's premises. Favoring results alone encouraged my course of managing this disease, until July, 1857, the *Amer. Journal Med. Sciences* praised it in authoritative terms. After reviewing Dr. Tiedimann's plan of treating dysentery, who proposed twenty grain doses of nitrate of potassium, given three or four times a day; the reviewer says: "We cannot agree with Dr. T. in his denunciation of opium as positively mischievous in the early stages of dysentery. We are in the constant habit of giving it from the very onset of the disease, and always with the very best effect. To derive from it the good it is calculated to produce in this disease, it must, however, be given in large doses. The effect of small and repeated doses is rather mischievous than beneficial. Although we have generally found sporadic dysentery a troublesome and obstinate, rather than a fatal disease, we certainly have not been quite so successful in its treatment as Dr. T. In few cases, occurring in very young, or in diseased or broken down constitutions, the disease has terminated fatally. We very much doubt whether in these cases the termination would have been different had we subjected them to the treatment laid down in the essay of Dr. Tiedimann.

In pledging the far-reaching œsculapian hand of opium, to save both time and life, within a reasonable certainty, in this malady, we do not lose sight of the kind of cases to be met with. It is not forgotten that dysentery, like croup and rheumatism, presents two different grades. The one associated with febrile or inflammatory features, the other being without fever. But instead of letting the distinction likewise divide our treatment, we follow the plan adopted by Dr. Jenner Coxe,

of New Orleans, respecting the treatment of croup, namely, group the different varieties in one, and apply the same remedial measures, only with such variations as the special aspect of each case may demand. In a mere, yet imperative, action of the bowels, with tenesmus, scanty, and muco-sanguineous evacuations, one or two full doses of opium will command relief. Add to this derangement a fever, thirst, heat of abdomen, and an antecedent chill, and you have the other variety of dysentery; which is still answerable to a larger number, and larger sized doses of the agent. Veratrum viride and local fomentations will add to our resources, but it is rare that recovery is a contingent of them.

Nor is it to be supposed that opium can be confided in when the diseased action has gained that destructive advance known as the ulcerative stage. Even here it cannot be prudently dispensed with, but its value is subordinate to other remedies. While it will quiet the vermicular action of the bowels, lessen the determination of blood to the pelvic viscera, sooth the wincing tenesmus kept up by the rough surface of eroded texture; local appliances, such as injections of nitrate of silver, and its kindred, must take priority. Neither in epidemic dysentery can the favorable results of opium be promised with as much hope, or trusted in, so exclusively. But if called in season to a sporadic case of dysentery, the alpha of the curative plan is, not a purgative, nor an emetic, nor calomel, but an arbitrary portion of opium, from the extrotic effect of which, there is plethoric reason to believe, the mischief will be arrested, and the subsequent stages of the malady will be anticipated.

Thus we have written of this herculean therapium. We have contemplated the principal spheres embraced in its mission and interrogated the scope of its powers. Our studies have evolved, in the foregoing essay, now, and not yet admitted points which may be in numerical order, re-stated as follows:

1. Contrary to the authority of Pareira, opium allays both normal and abnormal salacity.

2. It delectably exilerates the mental faculties of only about one half who take it.

3. Of opium eaters and those requiring to resort to it; it does not always require of them to increase the amount, in order to obtain the same result.

4. Those habituated to the use of tobacco, are generally freed from the secondary effect of nausea.

5. The relative power of morphia to opium, by weight, is believed to stand as 1 to 2; instead of as 1 to 4. Which is, that two grains of opium equals one grain of morphine.

6. Opium and quinine are in some respects incompatible with each other, which property may be usefully employed as antagonistic to stupor when prescribed for infants.

7. Without becoming intoxicated with this drug, and short of being proved guilty of adulation, we say, opium stands a head and shoulders above any other remedy, or other treatment in dysentery.

ARTICLE 6.

MUTILATION OF A CHILD BY A MIDWIFE.

BY H. CARPENTER, M. D.

I was called on Saturday morning, April the 9th, to see Mrs. L., aged 27, who I found sitting upon a chair in a leaning position, complaining of excrutiating pain in the right Iliac region, and unable to lie down. Tongue coated in the middle and very red at edges and tip. Pulse ninety. Skin dry and hot. Bowels constipated. Urine deficient and very red.—Pregnant with first child and in her eighth month of gestation. The assigned cause of her illness was walking three miles on the previous day. However, upon further examination, I elicited the following facts: After she was taken with slight pain sent for a midwife who came and gave her Tartar emetic, which acted promptly and very violent. Also gave her other medicines, but could not ascertain what. Then she requested an examinetion per vaginum which was agreed to. However before proceeding, she steamed her over a bucket of hot water, after which she introduced her hand into vagina, and during

the manipulations she created severe pain, which continued until next morning, consequently became alarmed and sent for me at once. After ascertaining the above particulars, I directed my treatment to arrest premature labor; correct the secretions and allay the increased action of the heart, for which I gave a large dose of Morphia with Hyd. cum creta. This relieved her so much that she was able to lie down. I then prepared three more powders of the same, directing her to take one every two hours alternately with half teaspoonful of the veratrum mixture, which consists of

Spir. Æther Nit. one drachm.
Tr. Opii. Camph.
Tr. Veratrum Viaieb aa. two drachms.

until she became easy, after which take castor oil. On the 10th her husband came to see me, stated that his wife took the oil after taking two powders—it operated twice—rested well during the night. I gave him several morphia powders to be given as occasion required, requesting him to inform me at once if the pains assumed the character of labor pain.

Friday evening, the 15th, I was called in haste, and on arriving was informed that the child's head had been born about half an hour, and pains very inactive; I consequently inferred the child was dead. I introduced my right index finger into the vagina, hooking it under the arm of the child, and made slight traction, which caused its expulsion. I applied cold water to the thoracic regions for the purpose of producing respiratory movement, which had the desired effect, at least caused it to gasp. Then I removed it a convenient distance from its mother in order that I might try artificial respiration; however discovered that the cord had been severed and bowels protruding, which cut off all hope of the child's recovery. After laying it one side, I endeavored to excite a pain that might expel the placenta, but did not succeed. I introduced my hand and grasped the placenta which came away very readily, but found it badly lacerated. After devoting sufficient time to the comfort of the mother, I commenced an examination of the child, which was in the following condition. Head natural, except badly bruised. Abdomen was lacerated from

points corresponding with the crest of Ilium; interior portion of the parietes was pressed into the pelvis, and all the viscera below the diaphragm were lying external to abdomen. Left hip joint was dislocated—head of the femur was thrown upwards on the dorsum ilia; funis was severed about six inches from the body, and had the appearance of having been torn some time, as there was no oozing of blood. During all of this time the action of the heart was perceptible.

I learned from the lady after her recovery, that when the midwife made an examination, she found the head presenting, which she said was a condition attended with a great degree of danger to the mother. After manipulating sometime, she said it was all right and the child would be born soon. However, after awaiting sometime, again endeavored to bring on labor, which explained the whole mystery to me. It is very evident that the woman attempted turning and completely murdered the child. But how is it possible for a child to live in utero one week after having the cord severed? It was not possible for the pains to have severed it, as they were very inactive during the entire process of labor.

[In reply to the question "how is it possible for a child to live in utero one week after having the cord severed?" there can be but one answer, and that is, its utter impossibity. In this case the cord was, without doubt, ruptured, as occasionally happens near the termination of labor, at which time it is liable to be put upon the stretch. The case only illustrates the danger of submitting the parturient process to the direction of ignorant persons, for though even when thus obstructed, nature is usually competent to terminate the labor successfully; yet cases every day occur where the life of the child or the mother, or both, is sacrificed to this too prevalent custom. —*Eds.*]

Lunatics in New York City.—In the want of any reliable census of lunatics in the city or state of New York, Dr. Ranney makes the accurate census returns of Massachusetts, in 1854, the basis of an approximative estimate, and concludes that there must be about 2000 lunatics at this time in New York city.

ARTICLE 7.

NEEDLE FOR WIRE SUTURE.

BY R. J. LEVIS, M. D.,

Surgeon to the Philadelphia Hospital.

The present general use of the metallic suture in surgery, will make acceptable a form of needle adapted to its peculiarities, and which, by facilitating its introduction through the tissues, will add to its convenience and efficiency.

For the free passage of the needle and wire, it is essential, first, that the wire be securely held; second, that it present, at its connection with the needle, no impediment to the transit through the tissues; third, that it should follow the needle in a direct line, not allowing an angle to form at the junction which will require traction to overcome. It is also important for the convenience of the operator, that the needle should be readily threaded.

In using the ordinary surgical needle for the purpose, even though the needle be deeply grooved at the eye for its lodgment, the wire forms a ring-like attachment with the needle, which impedes its passage. A sort of hinge joint is also formed at the junction, which will be movable, no matter how tightly the wire be twisted, and there will be continually forming an angle with the needle, which is a great impediment to its use in delicate tissues, and in regions difficult of access, as the vagina, rectum, and fauces. Another inconvenience which has occurred with me in the use of the ordinary needle and the silver wire, is the liability of the wire to be pinched off by the forceps necessary to its introduction in the above localities.

These objections have induced some surgeons to introduce the wire by first passing the ordinary silk thread to which the wire is attached, and then drawn through.

For the purpose of overcoming these inconveniences in the ordinary use of the wire suture, I have devised a modification of the needle, which is so well illustrated by the accompany-

ing proportionally collossal representations, as to render description almost unnecessary.

Its peculiarity is in what is usually the eye of a needle, though this is really without an eye, the attachment of the wire being accomplished by grooves in which it rests.

A groove deep enough for the lodgment of the wire, encircles the needle obliquely near its extremity, and leads into another groove which is vertical. The vertical groove is just wide enough at its entrance to admit the introduction of one wire at a time, but the inside of the groove being large enough to accommodate two wires, when both are introduced and twisted together, they are securely held. An attachment is thus effected which is as firm as if the needle and wire formed one continuous piece, and the wire being entirely encased within the grooves, it will traverse any tissue of the body without the least impediment.

There is a decided advantage in having the wire double for an inch or more following the needle, as any break in the wire invariably occurs very near to the needle.

This form of needle has been so extensively used in this city, as to thoroughly test its efficiency, and it has been preferred by the instrument makers, on account of its simplicity and the facility and cheapness with which it can be made.

Such needles, of sizes adapted to all uses, may be had from Mr. Gemrig, of Eighth street, or Mr. Kolbe, of Ninth street, in this city.—*Hospital Reporter.*

Mercurial Stomatites.—Geo. T. Barker, D. D. S., in the *Dental Cosmos*, observes: "My mode of treating mercurial sore mouth comprises the systemic and local; for the first I can highly recommend the potassac chloras of the pharmacopœia; for the latter, freely scarify the gums, painting them, after each operation, with iodine."

Editorial.

SOUTHERN STUDENTS LEAVING THE MEDICAL SCHOOLS OF PHILADELPHIA.

We have learned through the newspapers that over three hundred medical students from the southern states, recently left Philadelphia in a body for Richmond, and other southern cities.

If this movement is to be regarded as the result of political causes, it is to be regretted. If, on the contrary, it was the result of a returning sense of the mistake the young gentlemen committed in passing by the schools of their own states, especially for those of Pennsylvania, we cannot but commend their good judgment.

The Medical Schools of the southern cities suffer nothing in comparison with any in this or foreign countries.

Their professors are learned and eloquent; the facilities for clinical teaching, are in some of the large cities, ample. Why then, should they not be supported by southern students?

We do not in any way intend to disparage the advantages of Philadelphia as a seat of medical learning. Her character is too well established to require endorsement or fear depreciation, but we have long believed that a more equal distribution of students among such medical schools of the country as possess facilities for clinical instruction instead of gathering five hundred on the seats of a single lecture room, would be for the advantage of all concerned, and we hope that hereafter the medical students of the West will not be behind those of the South in their attachment to the institutions of their own particular sections; institutions which, if they are not already fully equal to any others, only require the patronage to which they are legitimately entitled to render them so.

TO THE MEDICAL PROFESSION.

At the Annual Meeting of the *Illinois State Medical Society*, held at Decatur on the first Tuesday in June last, the undersigned was appointed a special committee on the Medical uses of *Veratrum viride*.

Being desirous of gaining all the information within reach, bearing upon the subject, so as to make as full and satisfactory a report as possible, I take the liberty of addressing you the following questions, and respectfully solicit an early answer.

1. Have you made use of *veratrum viride* in your practice? If you have:
2. In what form do you use it; (if the tincture; whose preparation?) and in what dose?
3. What are its effects?
4. In your opinion, what is its *modus operandi?*
5. What value do you attach to it as a remedial agent?
6. In what diseases have you found it most useful?

Give any other information upon the subject you may possess, and address A. HARD, M. D., Aurora, Kane County, Ill., as early as the first of March, 1860.

Yours, &c.,

Aurora, Ill., Nov. 28, 1859. A. HARD.

SURGICAL NOTES.

1. DISLOCTION OF THE FEMUR OF THIRTY-NINE DAYS' STANDING, REDUCED BY MANIPULATION.—The patient in this case was one of the wounded at the accident on the Chicago and North-Western Railway. The nature of the accident seems to have been misapprehended, and it had been treated as a fracture. The reduction by manipulation after this length of time presents many difficulties arising from the necessity of breaking up adhesions, and from the opening in the capsular ligament through which the head of the femur escapes from the socket being closed. By care and perseverance this was overcome, and the reduction effected. This is the third case already reported in these notes within a

few weeks, in which this form of dislocation had been reduced. In only one was this effected by simply following the directions of Ried. In the other two, different movements were required to replace the bone in the acetabulum.

Much less pain and inflammation resulted from the efforts at reduction than would be expected after such a length of time, and ten days after the reduction, I learned that he was doing well, free from pain, with the member in the natural position.

2. Dislocation of the Hip into the Thyroid Foramen —Reduction by the Method of the Author.—On the 22d of December, 1859, we were called to a robust young man, upon whom part of a load of coal had fallen. The signs of dislocation into the Thyroid Foremer were very apparent, and the accident had occurred only an hour before. The reduction was effected in the following manner:

1. The patient was placed fully under the influence of chloroform. 2. A piece of wood, three and a half inches in diameter, surrounded by a pillow, was pressed against the perineum. 3. The members were used as levers, by seizing by the hands, at the ankles, and carrying them toward each other. During its reduction, the patient lay with his hips on the edge of the bed, the members extending over it. The knees were not flexed. The reduction was effected in ten seconds after force was applied, with ease.

This is the fourth case in which we have reduced this form of dislocation of the hip, by the hands alone. In none has any bad effect resulted. Three of these cases were noticed in the number of this Journal for Oct., 1859, but as the method is new, and the subject important, it is believed that each additional case will be of interest.

3. Silver Sutures.—On the 17th Dec. last, we had occasion to excise an extension cicatrix, the result of a burn on the popliteal region. The loss of substance was so extensive as to require moderate traction to fetch the edges of the wound together. In order to test the comparative value of sutures of silver wire and of thread, a part of the wound was dressed with the former, and a part with the latter. On the second

day, nearly all the wires had cut through, notwithstanding strips of adhesive plaster were applied when separation of the edges was perceived. The thread, on the contrary, retained the edges well in contact to the fifth day.

This result was owing, no doubt, to the fineness of the wire used, which passes upon a smaller surface than that with which the thread comes in contact. We infer that if metalic sutures are to be used, for which, in general, no good reason appears as yet, those of lead or silver, made broad, should be preferred.

We have also recently used the silver wire on a stump, after amputation of the arm, at the City Hospital. The result was, however, in no respect different from that where thread is used.

4. Treatment of Indolent Ulcers by Vapor of Iodine. During the last three years nearly all the cases of indolent ulcers entered under our care to the U. S. Marine Hospital, have been treated by the vapor of iodine. The result is very satisfactory in nearly all cases; more so, by far, than that obtained by any other single method. Its advantages are conceived to be these:

1. Cleanliness and facility of application.

2. Rapidity of cicatrization.

3. Destruction of the odor of the ulcer. Iodine acts as a disinfectant, like chlorine.

The manner of using it is as follows:

1. Dress the ulcer with simple create, spread on lint.

2. Take from one to four grains of iodine, according to the size and degree of indolence of the ulcer, folded in several layers of lint, and place it on the ulcer, over the first layer.

3. Cover this with a piece of oiled silk and tin foil, which should be large enough to extend beyond the edges of the ulcer. This is to prevent rapid vaporization, and it should be secured by a roller.

The warmth of the member speedily vaporizes the iodine, and a sensation of warmth is perceived by the patient on the ulcerated surface. If applied in too large quantity, or too directly on the surface, the Iodine acts as an escharotic. Care is therefore required in this respect.

MANUAL

OF

B. KEITH & CO.'S

CONCENTRATED MEDICINES.

TO THE MEDICAL PROFESSION.

We would respectfully tender our sincere thanks to the medical profession, not only for the very liberal patronage bestowed, but also for the impartial and independent course they have pursued in submitting the question of the reliability of our preparations to the ordeal of clinical tests, thus insuring to themselves conclusive demonstrations of their superiority over all other concentrated medicines.

We base our reputation and our claims to the confidence and support of the profession, as heretofore, upon the reliable character of the concentrated medicines of our manufacture, and pronounce them superior to all other concentrated preparations, for the following reasons:—

1st.—They are not fractional isolations of single resin, resinoid, or alkaloid principles, but are composed of the various proximate medicinal principles inherent to each plant, which, each and several, are isolated, divested of all extraneous or non-medicinal admixture, and then recombined in the same manner and proportions in which they existed in the plant, and without alteration of constitution or therapeutic power. Thus, while the Podophyllin of other manufacturers consists of the resinoid principle of the plant alone, our Podophyllin is composed of *three* distinct and separate proximate active principles, namely, a resinoid, alkaloid, and neutral. The "resinoid" Podophyllin is harsh, irritating and drastic in its operation; while ours, combining the three above-mentioned principles, is comparatively mild and unirritating; the alkaloid and neutral principles exercising a wonderful modifying power over the action of the resinoid. We were the first, and, as yet, are the only organic chemists who have made a correct analysis of the Podophyllum Peltatum, and the unanimous and universal voice of the profession attests the correctness and justice of our claims by giving our Podophyllin preference over that of every other manufacturer. So with Leptandrin. That of other manufacturers consists of a single resinoid principle, while ours contains *three* additional and important principles namely, a resin, alkaloid and neutral. With two single exceptions, all our preparations bear this distinguishing characteristic. We were the first to correctly analyze, isolate, and recombine the proximate active medicinal constituents of all but two of the proper concentrated organic remedies now before the profession.

2d.—Our preparations represent the total therapeutic value of the plants from which they are severally derived, combining all their proximate active constituents, and constituting their true *concentrated equivalents.*

3d.—They are *definite* in constitution and therapeutic power, *uniform* in medicinal strength, *reliable* in clinical practice, and not liable to vary, change, or deteriorate by age.

These are considerations which, it seems to us, must strike every practitioner as being the essential conditions requisite to

be possessed by remedial agents. We solicit investigation into the truthfulness of our statements, and the merits of our preparations, and respectfully invite practitioners to call and see us, and ascertain for themselves the facts in relation to this new order of pharmacy. Physicians having difficult and obstinate diseases to treat, and which resist the influences of the ordinary remedials, are solicited to make trial of our remedies. Upon application we will furnish small quantities of any of the remedies designated, for the purpose of testing their efficiency.

For a full and reliable history of the therapeutic properties and clinical employment of the concentrated medicines manufactured by us, the reader is respectfully referred to a volume entitled "Concentrated Organic Medicines," by Grover Coe, M. D.

For sale at our office.

OUR OBJECT.

To provide the profession with *compact, portable,* and *reliable* medicines, *positive* in their character, and prompt in their effects. Upon the realization of these properties and results, by practitioners of medicine, we ground our hopes of future countenance and approbation.

We do not, nor never have appealed to the prejudices of the community, but to the intelligence of the profession, and, soliciting investigation, we cheerfully rely upon an unbiased estimate of the evidence afforded them, to yield us a favorable verdict.

PURITY.

We warrant our preparations to be pure. Some have pursued the plan of triturating extracts, oleo-resins, etc., with sugar of milk, and advertising them by the same names as the pure preparations. The physician does not discover the error until he receives his medicines, and, to his disappointment, he sees that he has lactinated instead of *pure concentrated medicines.*

Those who desire our articles should specify them when ordering of the druggists.

ADMINISTRATION.

As a majority of these medicines are soluble in, or will mix with water, we consider it the best vehicle by which they can be administered. If it is desirable to avoid all unpleasant taste, a very convenient and superior vehicle is furnished by using the Jujube Capsules, manufactured and for sale by us. They are put up in neat paper boxes of one hundred capsules each. They are of two sizes:—No. 1 will contain from four to six grains of the powders, or fifteen drops of the liquids. No. 2 will contain three grains of the powders, or seven drops of the liquids. Price per box, 30 cents.

MEDICAL PROPERTIES AND USES.

Our specification of the diseases in which these remedies are applicable, is necessarily quite limited. We give, in full, a statement of their therapeutic powers so far as ascertained, hence the physician, having properly diagnosticated his case, will be governed by the indications to be fulfilled in regard to the agent employed. He has but to acquaint himself with their therapeutic powers, to enable him to exhibit them successfully in all manifestations of diseased action.

DOSES.

We give the average doses for adult males. The modifying influences of age, sex, temperament, etc. will constitute criterions for graduation.

The usual medium doses being given, the physician's judgment will dictate the propriety of *time, quantity,* and *repetition.*

PRESERVATION.

These medicines, like others, should be kept closely corked in order to preserve their virtues. Some of them have a great affinity for water, and if left exposed, will absorb moisture from the atmosphere and harden.

CAUTION.

Our Label reads—"Prepared at the Laboratory of B. Keith & Co., New York," and upon the seal is impressed "B. Keith & Co., Organic Chemists, N. Y."

Only such as bear this label and seal will we warrant as genuine.

CONCENTRATED MEDICINES.

AMPELOPSIN.

Derived from the *Ampelopsis Quinquefolia* (Common names, American Ivy, Woodbine, Five Leaf, &c.)

Properties and uses. Alterative, tonic, astringent, and expectorant.

Used in the treatment of venereal diseases, scrofula, dermoid affections, bronchitis, and other derangements of the respiratory system, and in all cases in which an alterative is required.

Dose, two to four grains.

EUPATORIN, [PERFO.]

Obtained from the *Eupatorium Perfoliatum.* (Common names, Boneset, Thoroughwort, &c.)

Properties. Tonic, aperient, diaphoretic and emetic.

Used in intermittent fever, dyspepsia, and all cases of general or local debility, coughs, colds, catarrh, &c. It is sometimes given to promote the action of other emetics, and aided by warm diluent drinks, will be found a valuable diaphoretic in fevers. Dose, one to three grains.

APOCYNIN.

Obtained from the root of the *Apocynum Cannabinum.* (Common names, Black Indian Hemp, Dog's Bane, Bitter Root, &c.)

Properties. Alterative, tonic, aperient, diuretic, detergent, deobstruent, emetic, diaphoretic and anthelmintic.

Used in dropsy, dyspepsia, scrofula, rheumatism, consumption, atonic conditions of the stomach, kidneys and lacteal vessels, and in the convalescing stage of typhoid and other fevers, dysentery and other forms of acute disease. Also, for destroying the ascaris vermicularis. Dose, one to two grains, three or four times per day.

COLLINSONIN.

Obtained from the root of the *Collinsonia Canadensis.* (Common names, Hardback, Heal-all, Stone Root, Ox Balm, &c.)

Properties. Tonic, astringent, diaphoretic, alterative, resolvent and diuretic.

Used in diarrhœa, dysentery, gout, gravel, dropsy, catarrh of the bladder, leucorrhœa, hemorrhoids, colic, cramps, indigestion, &c. Dose, two to five grains.

BAROSMIN.

Derived from the *Barosma Crenata.* (Common name Buchu.)

Properties. Diuretic, stimulent and diaphoretic.

Used in gravelly affections, catarrh of the bladder, inflamation of the bladder and urethra, dropsy, gout, diseases of the skin, hepatic diseases, &c.

Dose, one to three grains.

EUONYMIN.

Obtained from the bark of the *Euonymus Americanus* (Common names, Burning Bush, Wahoo, &c.)

Properties and uses. Tonic, laxative, alterative and expectorant. This medicine is successively used in the treatment of dyspepsia, torpid liver, constipation and dropsy. It imparts tone to the stomach, and activity to the digestive organs. Dose, one to three grains.

BAPTISIN.

Derived from the root of the *Baptisia Tinctoria.* (Common names, Wild Indigo, Horsefly weed, &c.)

Properties and uses. Astringent, emetic, emmenagogue, purgative, stimulant and antiseptic. Also, esteemed by some as a febrifuge and diaphoretic. Internally, this remedy is principally used in those cases of scarlet, typhoid, typhus and other fevers, wherein symptoms of a tendency to putrescency are present. In such cases, this remedy, as an antiseptic, stands unrivalled.

It has also been used with very satisfactory results in some forms of rheumatism and pneumonia. It is unsafe to use during the period of utero-gestation, as it is capable of producing abortion. It excites the glandular system powerfully, which entitles it to the appellation of resolvent.

Externally, it is a valuable remedy for all kinds of ulcers, even the foulest, either gangrenous, eating or syphilitic. Also, for ulcerated sore throat, mercurial sore mouth, sore nipples, chronic sore eyes, and in short, every ulcerous affection. It

may be sprinkled upon the surface of the sore, made into an ointment, or into a poultice with elm bark.

Dose, from one to three grains.

CAULOPHYLLIN.

Obtained from the rhizoma of the *Caulophyllum Thalictroides.* (Common names, Blue Cohosh, Blueberry, &c.)

Properties. Anti-spasmodic, diuretic, diaphoretic, alterative, emmenagogue, anthelmintic, parturient, and tonic.

Used in rheumatism, dropsy, epilepsy, hysteria, cramps, amenorrhœa, dysmenorrhœa, chorea, leucorrhœa, hysteritis, hiccough, to expedite delivery, and to relieve after-pains. For this last purpose particularly when combined with Cypripedin and Scutellarin, it is very efficient. As a preparatory parturient, given in moderate doses, every night at bedtime for several weeks previous to confinement, it allays cramps, false pains, and other unpleasant symptoms. In atonic conditions of the uterus, passive hemorrhage, congestive dysmenorrnœa and prolapsus uteri, it has proved of much efficacy. To expedite delivery in cases of debility, fatigue, or want of uterine energy, it is superior to ergot. The dose in these cases is to be repeated every thirty or sixty minutes. Dose, as an alterative, one to three grains; for other purposes, one to five grains.

DIOSCOREIN.

Derived from the *Dioscorea Villosa* (Common names, Wild Yam, Colic Root, &c.)

Properties. Anti-spasmodic, expectorant and diaphoretic.

Used in bilious colic, cholera morbus, hepatic disorders, flatulence, spasms, coughs, afterpains, dysmenorrhœa, &c. This is decidedly the best remedy known for bilious, flatulent and other colics, and for cholera morbus and all other spasmodic affections of the stomach and bowels. It is prompt, safe and reliable. Average dose, from two to five grains, repeated as occasion requires.

CHIMAPHILIN.

Obtained from the *Chimaphila Umbellata.* (Common names, Prince's Pine, Pipsissewa, &c.)

Properties. Alterative, tonic, diuretic and astringent. Used in scrofula, rheumatism, dropsy, gonorrhœa, strangury, gravel, debility, &c. Useful in all vitiated conditions of the blood and fluids, skin diseases, and whenever an alterative, resolvent and tonic is indicated. Dose, two to five grains.

CHELONIN.

Obtained from the *Chelone Galbra.* (Common names, Snakehead, Balmony, &c.)

Properties. Tonic and vermifuge.

Used in indigestion, debility, hepatic derangements, loss of apetite, and for the removal of worms.

Dose, one to two grains.

ASCLEPIN.

Obtained from the rhizoma of the *Asclepias Tuberosa.* (Common names, White Root, Pleurisy Root, &c.)

Properties. Diaphoretic, diuretic, antispasmodic, carminative, expectorant, resolvent, sub-tonic and laxative

Used in pleurisy, pneumonia, fevers of different types, rheumatism, peritonitis, catarrh, consumption, indigestion, flatulence, hysteria, hooping-cough, asthma, hepatic derangements, chronic rheumatism, diarrhœa, dysentery, and to promote the eruption in exanthematous fevers. Exercises an especial influence over the serous tissues, hence is of great value in the treatment of diseases involving those membranes. Gives prompt relief in flatulent colic. Its powers are enhanced by being administered in warm water. In dysentery, during the febrile stage, it is of great value. Dose, two to four grains.

CORNIN.

Obtained from the *Cornus Florida.* (Common name, Dogwood.)

Properties. Tonic, astringent and slightly stimulant.

Used chiefly as a substitute for quinine where a peculiar idiosyncrasy forbids the use of the latter article. It is considered the best native substitute for the bark that we have. But it possesses other properties not less valuable than its anti-periodic power. In that distressing symptom of indigestion, termed heartburn, it gives prompt relief. It has also gained considerable reputation in the cure of leucorrhea.

Dose, two to four grains.

FRASERIN.

Derived from the *Frasera Carolinensis.* (Common name, American Columbo.)

Properties. Tonic, stimulant, and mildly astringent. Used in indigestion, debility, diarrhœa night-sweats, hysteria, gravelly disorders, etc. An excellent and reliable tonic in all cases in which the system has been exhausted by profuse colliquative discharges. Promotes digestion and assimilation. Dose, from two to ten grains.

CORYDALIN.

Derived from the root of *Corydalis Formosa.* (Common names, Turkey Corn, Turkey Pea, Staggerweed, etc.)

Properties and uses. Alterative, tonic, and diuretic. This remedy is esteemed one of the most valuable of its class, particularly in the treatment of syphilis, scrofula, and dermoid diseases. As an alterative, its operation is prompt and positive; as a tonic, it fulfills the indications for which the pure bitters are employed.

Its operation is silent, safe and salutary.

Dose, from one to two grains.

EUPHORBIN.

Derived from the root of *Euphorbia Corollata.* [Common names, Blooming Spurge, Bowman's Root, &c.]

Properties and uses. Emetic, cathartic, diaphoretic, expectorant and vermifuge. Use in the forming stages of fevers, in dropsical affections, diarrhœa, dysentery, and to expel worms. In small doses, it is diaphoretic, nauseant, and relaxant. In emeto-cathartic doses it will sometimes produce a considerable degree of prostration, cold sweats, coldness of the extremities, and sinking of the pulse. From this condition however, the system soon reacts, and the patient incurs no permanent debility.

Dose, as an emetic, two grains. As a diaphoretic and expectorant, from one-fourth to one grain.

EUPATORIN [PURPU.]

Obtained from the *Eupatorium Purpureum.* [Common names, Queen of the Meadow, Gravelroot.]

Properties. Diuretic, stimulant, astringent and tonic.

Used in strangury, gravel, and all chronic urinary disorders, gout, rheumatism, hematuria, hematemesis, hemoptysis, dysentery, &c. It has been found of great value in the treatment of the latter disease, and in pertussis, asthma, and all affections accompanied with dysponœa, it has been found an useful auxiliary. Dose, two to four grains.

CERASEIN.

Derived from the bark of the *Cerasus Virginiana* [Common name, *Choke Cherry.*]

Properties and uses. Cerasein is astringent, tonic, nervine, anti-spasmodic, diuretic, anti-periodic, and febrifuge. In the treatment of ague and fever, according to the experience of many practitioners, it is unequalled. It is alike applicable in the treatment of fevers of every type, and the convalescing stages of all acute diseases.

Also chorea, hysteria, spermatorrhea, and in all cases where an anti periodic, tonic febrifuge is indicated. Medium dose, five grains.

ALNUIN.

Obtained from the *Alnus Serrulata.* (Common names, Tag Alder, Swamp Alder, &c.)

Properties. Alterative and tonic.

Used in strumous and cutaneous affections, syphilis, and in all cases attended with debility and viciation of the blood and fluids. From twenty years' experience in the use of this article, both in crude and concentrated forms, we have learned to value it highly. Dose, two to ten grains.

CYPRIPEDIN.

Prepared from the rhizoma of *Cypripedium Pubescens.* (Common names, Ladies' Slipper, Nerve root, &c.)

Properties and uses. Anti-spasmodic, nervine, tonic, and slightly narcotic. There probably never will be an article discovered which will meet so many indications in the treatment of disease, where an anti-neuropathic is needed, as the different preparations of opium. Its praises have been long and well sung, and we would not detract one iota from its just merits. There are many cases of idiosyncrasy, etc., where opium does not act kindly. In these cases, and as a general nervine, the Cypripedin is very beneficially used. In those cases of hysteria, chorea, nervous headache, neuralgia, hypochondriasis, &c., which are aggravated, or not relieved, by opium, this article is used with very happy results. It is also beneficially used in all cases of nervous irritability, nervous head-ache, and is far preferable to administer to children than any of the preparations of opium. There is no danger of its producing constipation, and its tonic property renders it very serviceable in diseases of debility. It may be used in all cases where it is desirable to quiet the nervous system. Dose, two to four grains.

DIGITALIN.

Derived from the leaves of the *Digitalis Purpurea.* (Common name, Foxglove.)

Properties and uses. In medical doses, Digitalin is diuretic and sedative. It exercises a powerful influence over the absorbent system, hence its indication in cases of dropsical effusions. It has the reputation of possessing cumulative properties, but this, we think, may be avoid-

ed by duly neutralizing the acidity of the system previous to its exhibition. It is employed in all febrile diseases, hemoptysis, neuralgia, mania, epilepsy, pertussis, asthma, rheumatism, dropsies, and diseases of the heart and kidneys. Its use implies the necessity of much caution. Dose, from one-fifth to one half of one grain.

JUGLANDIN.

Derived from the bark of the *Juglans Cinerea.* (Common names, Butternut, White Walnut.)

Properties and uses. In large doses, emetic and cathartic. In small doses, laxative, cholagogue, deobstruent, detergent, diuretic, and alterative. Of exceeding value in the treatment of those fevers attended with gastric and enteric irritability, dysentery, habitual constipation, jaundice, dyspepsia, the various affections of the urinary apparatus, piles, and all visceral derangements. It operates without irritation, and leaves the bowels in a soluble condition. Dose, two to five grains.

ATROPIN.

Obtained from the leaves of *Atropa Belladonna.*

Properties. Narcotic, sedative, resolvent, diaphoretic, diuretic, and alterative.

Used in all diseases, particularly of a chronic character, which are based upon an abnormally increased sensibility, such as mania, melancholy, epilepsy, hooping cough, chronic neuralgia, hydrophobia, amaurosa, etc Used also in indurations of the glandular organs, in the commencing stages of scirrhus, obstructions and retarded circulation of the abdomen, dropsies, obstructed catamenies, etc, and as a prophylactic in scarlatina. Dose, one-twenty-fourth to one-twelfth of one grain.

HAMAMELIN.

Derived from the bark of the *Hamamelis Virginica.* (Common name, Witch Hazel.)

Properties. Astringent, tonic, and sedative Used in diarrhœa, dysentery, hemorrhages, stomatitis, leucorrhœa, gleet, &c. Extremely valuable in the treatment of all excessive mucous discharges, apthous affections, passive hemorrhages, &c. Useful whenever astringents are indicated. Average dose, from one to three grains.

GELSEMIN.

Obtained from the root of the *Gelseminum Sempervirens.* (Common names, Yellow Jessamine, Woodbine, etc.)

Properties and uses. Febrifuge, antispasmodic and narcotic. As a febrifuge, the Gelsemin is a medicine of great power. Its use is indicated in all fevers, acute and chronic rheumatism, pleurisy, pneumonia, etc. It has been pretty thoroughly tested by physicians, both in the city and country, and all who have given it a fair trial, acknowledge it to possess great merit. The following quotation will show in what estimation it is held by the most sanguine of its remedial properties. "It is, perhaps, the only medicine yet discovered capable of subduing in from six to twenty-four hours, without the least possible injury to the patient, the most formidable, as well as the most simple fevers incident to our country and climate,—quieting nervous irritability and excitement, equalizing the circulation, promoting perspiration, and rectifying the various secretions, without causing nausea, vomiting or purging, and is also adapted to any stage of the disease. It may follow any preceding treatment with safety." If the medicine possesses one-half of these virtues, it is worthy the careful attention of the profession. But the Gelsemin is not to be recklessly administered, as it has doubtless been in some cases, and with bad results. Its effects must be carefully watched. It is probably contra-indicated in all cases where there is structural disease of the heart, and in cases of great debility. In full doses it produces narcotism, indicated by loss and prostration of muscular power, clouded vision, double sightedness, and inability to open the eyes. But if the medicine is here discontinued, these effects pass off in a few hours, leaving the patient strengthened, rather than debilitated. In some cases it is desirable to produce a state of semi-narcotism, and keep the patient in that condition some length of time. Combined with hydrastin or quinine it is very efficacious in the treatment of severe cases of intermittent fever, and by such a combination it is less apt to narcotise. In acute diseases it is better to give it in small doses of from one-sixteenth to one-eighth of a grain, every one, two or three hours. In chronic diseases a medium dose may be given three or four times during the day.

From our experience in the use of the above article, we are inclined to give it a high rank as a vermifuge. In our hands it has proved highly successful in the removal of intestinal entozoa.

In the treatment of neuralgia, some practitioners deem it almost a specific. Dose, one-fourth to one grain.

MYRICIN.

Obtained from the bark of the *Myrica Cerifera.* (Common name, Bayberry.)

Properties and uses. Astringent, stimulant, and alterative. As an alterative the Myricini s a medicine of considerable value, but must be given in combination with some laxative, to obviate its constipating tendency. It is successfully used in scrofula, dysentery, diarrhœa, and where astringents or alteratives are indicated. Dose, two to four grains.

HELONIN.

Obtained from the *Helonias Dioica.* (Common names, False Unicorn Root, Drooping Starwort, etc.)

Properties. Tonic, diuretic, vermifuge. etc.

Used in dyspepsia, loss of appetite, etc. Perhaps no medicine better deserves the name of an uterine tonic. Hence it is invaluable in the treatment of leucorrhœa, amenorrhœa, dysmenorrhœa, and all conditions of the uterus attended with atony, and to relieve a tendency to repeated and successive mi-carriages. In chronic gastritis, and in the convalescing stage of acute diseases, where there is much gastric irritability, it will be tolerated by the stomach when other tonics are rejected. Dose, two to four grains.

JALAPIN.

Obtained from the rhizoma of the *Ipomœa Jalapa.* This is the resin of the Jalap, and is the cathartic principle of the plant

The properties and uses of the Jalap are too well understood to need any lengthened description. It is well-known to be an active hydragogue cathartic, producing copious watery stools, with nausea and griping. The Jalapin possesses all of these qualities excepting that it is less apt to nauseate and gripe. It is usual to combine it with some other cathartic, to modify its action. Used in dropsy, bilious fever, congestion of the portal circle, and in all cases where active catharsis is indicated. Dose, two to four grains.

GERANIN.

Obtained from the root of the *Geranium Maculatum.* (Common names, Crane's Bill, Crow's Foot.)

Properties and uses. One of the most powerful indigenous astringents, and its use is indicated in all cases where such medicines are applicable. On account of its being quite free from any unpleasant taste or odor, and the small doses, it is very convenient for administering to children, and persons of a delicate stomach. It has been found very serviceable in the treatment of hæmoptysis, passive hemorrhages, ulcers, apthous sore mouth, gleet, leucorrhœa, diabetes, and all excessive mucous discharges.

The Geranin is an excellent remedial in the treatment of dysentery and diarrhœa; after the use of proper evacuants; also, in the latter stages of cholera infantum.

It has checked the vomiting in cholera when other means failed. Dose, one to three grains.

PODOPHYLLIN.

Obtained from the root of the *Podophyllum Peltatum.* (Common names, May Apple, Mandrake.)

Properties and uses. Alterative and cathartic. In doses of from four to six grains, the Podophyllin usually acts as an emeto-cathartic, with severe griping, nausea, prostration and watery stools; two to four grains as an active cathartic, leaving the bowels in a soluble condition; and one-fourth to one-half grain as an alterative and aperient. Its tendency to gripe will be lessened, or entirely obviated, by combining it with some stimulant.

In many respects the Podophyllin usually acts like the mercurial preparations. When given alone, its operation as a cathartic is slow, requiring from six to twelve hours for its full effects. If it is desirable to produce catharsis sooner than that, it is well to combine it with the Bitartrate of Potassa or Jalapin. In doses sufficiently small not to purge, if frequently repeated, it will produce, in many persons, incipient ptyalism. In a few cases we have known this effect to follow the administration of a single cathartic dose; but it is always of a milder form than that produced by mercurials, without any danger of producing the secondary effects which are so often observed after the free exhibition of that remedial agent.

Its use is indicated in all cases where mercurials are usually given, and as the profession generally understand the indications for their use, they will readily learn to use the Podophyllin by a transfer of that knowledge.

In glandular diseases, primary and secondary syphilis, dropsies, dysentery, diarrhœa, disease or torpidity of the liver, and in nearly all cases where an alterative or a cathartic is indicated, the Podophyllin has been fully and successfully tested. When judiciously given, it seldom disappoints the reasonable expectations of the physician. For the expulsion of ascarides from the intestines, the Podophyllin has

few superiors; also for the dislodgement and expulsion of biliary calculi; being given in full cathartic doses, and followed in four or six hours with from four to eight ounces of olive oil. This plan has been adopted in a number of cases, and large quantities of the calculi were passed with very little pain. When we consider the excruciating suffering which the passage of these calculi usually produces, any plan of treatment which will mitigate the intensity of the pain will be hailed with pleasure both by patient and physician.

Very much might be said on the merits and various uses of the Podophyllin, but the designed limits of this manual forbid. The various indications and modes of combination of the remedy will readily suggest themselves to the physician's mind. From the success which has attended its administration, the Podophyllin bids fair to occupy a very important place as a cathartic and alterative, and the appellation of "Vegetable Calomel" is no misnomer. There are many cases of primary and secondary syphilis, occurring in persons of broken-down constitutions, where mercury has been administered as far as it is admissible, or its exhibition, on account of the strumous diathesis, would not be tolerated. In such, and other cases, we invite the profession to try its merits, marking well its effects, and reporting to the profession through the journals, the result of their observations.

LEPTANDRIN.

Obtained from the rhizoma of the *Leptandra Virginica.* (Common names, Black Root, Culver's Physic.)

Properties and uses. Alterative, laxative, tonic, and hepatic.

It is one of the very best medicines known, to correct and stimulate the hepatic secretions in those cases where it is desirable not to produce debility, by drastic alvine evacuations. It operates silently, yet surely. For the treatment of children and delicate females, and many chronic diseases, where there is deficiency of the proper biliary secretions, and where, from the advanced stage of the disease, the former use of drastic cathartics rendering their repetition inadmissible, or any inflammatory condition of the stomach and bowels, the bowels can be moved, and the secretions regulated with the Leptandrin without danger of further prostration. It is very efficacious in the treatment of dysentery, diarrhœa, and cholera infantum. In these diseases it is usually given in small doses, and repeated every one or two hours. The marked success which has attended the use of the Leptandrin in the treatment of summer complaints, demands for it a more prominent place in our Materia Medica, and further observations as to its therapeutic effects. It is also used with marked success in typhoid fever, intermittent, dyspepsia, jaundice, piles, biliary derangements, combined with hydrastin or quinia. Valuable in the treatment of chronic laryngitis, bronchitis, and other affections of the throat and chest. Dose, two to four grains.

PHYTOLACIN.

Obtained from the rhizoma of the *Phytolacca Decandra.* (Common names, Garget, Poke, Scoke.)

Properties and uses. Alterative, and slightly narcotic and emetic. It is a valuable article, and an efficacious remedy in the treatment of chronic rheumatism, syphilis, scrofula, and cutaneous diseases. It is also considered a valuable remedy in hydrophobia. Dose, one to three grains.

COLOCYNTHIN.

Derived from the fruit of *Cucumis Colocynthis.* (Common name, Colocynth.)

Properties. Emetic, cathartic, diuretic, and stimulant.

Used in torpor of the abdominal organs, inactivity of the lymphatic system, glands, and mucous membranes of the abdomen and abdominal nerves, obstinate quartan fevers, atonic jaundice, torpid dropsies, obstructions of the catamenies, chronic nervous diseases, ascarides, etc. Dose, one-half to two grains.

RHEIN.

Derived from the root of *Rheum Palmatum.* (Common name, Rhubarb.)

Properties. Cathartic, alterative, laxative, tonic, resolvent, chologogue, antiseptic.

Used in all cases of debility of the organs of digestion, assimilation and secretion, apepsia, dyspepsia, heartburn, flatulence, constipation, diarrhœa, cardialgia, colic, dysentery, atonic dropsy, chloritis, mucous cachexies, scrofula, diabetes mellitus, atonic hemorrhoids, bilious and atrabilaric fevers, jaundice, biliary calculi, asthenic catarrhs, etc. Dose, one to five grains.

PRUNIN.

Obtained from *Prunus Virginiana.* (Common name, Wild Cherry.)

Properties. Tonic and stimulant to the digestive organs, and sedative to the circulating and nervous system. Used in phthisis, hectic fever, scrofula, intermittent fever, the convalescing stage of acute diseases, and in all conditions of extreme debility.

Dose, two to three grains.

IRISIN.

Obtained from the root of *Iris Versicolor*. [Common names, Flag Lily, Blue Flag.]

Properties. Alterative, laxative, diuretic, and anthelmintic. Its use is highly spoken of as an alterative in scrofulous and syphilitic affections, and is usually combined with the Podophyllin. It is a good auxiliary in the treatment of rheumatism, dropsy, gonorrhœa, glandular diseases, chronic diseases of the liver and spleen. Dose, two to four grains.

POPULIN.

Obtained from the bark of *Populus Tremuloides*. (Common names, Quaking Aspen, Upland poplar, etc.)

Properties. Alterative, depurative, deobstruent, diuretic, tonic and vermifuge.

Used in indigestion, hysteria, flatulency, cutaneous diseases, worms, jaundice, fevers, etc. As a remedy for frequent and painful micturation, accompanied with heat or scalding, combined with a little tincture of myrrh, it perhaps stands unrivalled. Dose, two to four grains.

MENISPERMIN.

Derived from the root of *Menispermum Canadensis*. (Common names, Yellow Parilla, Moonseed, etc.)

Properties. Alterative, tonic, laxative, diuretic, and stimulant.

Used in scrofula, syphilitic affections, cutaneous eruptions, gout, rheumatism, hepatic torpor, constipation, loss of appetite, indigestion, glandular enlargements, etc. A valuable and desirable alterative, resolvent and laxative tonic. May be employed with most decided advantage in the diseases above mentioned.

Average dose, from one to five grains.

LYCOPIN.

Derived from the *Lycopus Virginicus* [Common names, Water Horehound, Bugle Weed, Sweet Bugle, etc.]

Properties. Astringent, styptic, sedative and tonic. Used in incipient phthisis, hemoptysis, hematamesis, hematuria, uterine and other hemorrhages, diabetes, chronic diarrhœa, dysentery, cardiac affections, etc. One of the very best remedies of its class. In the treatment of hemoptysis and diabetes it has been found of peculiar and exceeding efficacy. Average dose, from one to four grains.

MACROTIN.

Obtained from the rhizoma of the *Macrotys Racemosa*. [Common names, Black Cohosh, Squaw Root.]

Properties and uses. Anti-spasmodic, narcotic, tonic, and emmenagogue, with a special affinity for the uterus. It is used in uterine diseases, leucorrhœa, dysmenorrhœa, sterility, chorea, hysteria, and as a parturient. In many cases it is desirable to give this medicine in such continued quantities as to produce its peculiar constitutional effects, viz., slight dizziness, fullness, dull aching of the head, and more or less aching of the joints; and to produce these effects, in some degree, every day while the medicine is being administered. Its use is also well spoken of in neuralgia, asthma, splenitis, pertussis, delirium tremens, and gonorrhœa. As a parturient, the Macrotin is a remedy of considerable merit. It is quite as sure to increase the contractile powers of the uterus as the ergot, but is not as violent in its effects. In cases where the safety of the child would be endangered by the administration of the *secale cornutum*, and as a general partus accelerator, this article may be safely given.

Dose, one to three grains, three to six times per day. As a parturient, three to five grains, to be repeated in from thirty to sixty minutes, if necessary.

HYOSCYAMIN.

Obtained from the leaves of the *Hyoscyamus Niger*. (Common name, Henbane.)

Properties. In large doses, narcotic and dangerous. In medicinal doses, it is anodyne, soporific, anti-spasmodic and laxative. Usually given where opium disagrees, or where constipation is to be avoided.

Used in neuralgia, gout, rheumatism, asthma, chronic cough, irritability of the urinary organs, and in all nervous and spasmodic affections. Dose, one-eighth to one grain.

VERATRIN.

Obtained from the *Veratrum Viride*. (Common names, American Hellebore, Swamp Hellebore.)

Properties. Narcotic, emetic, diaphoretic, cathartic, etc.

Used in pneumonia, rheumatism, pleurisy, typhoid, bilious and intermittent fevers, and in most cases where there is high febrile and inflammatory action. In the treatment of dysentery, it is a superior auxiliary, given every three or four hours, following it in one or two hours, with one or two grains of the Geranin.

There are few remedies by which the heart's action can be so readily and surely controlled as with the Veratrin, which renders it a valuable remedy in palpitation, and where there is high arterial excitement. It may also be used in neuralgia, etc.

The Veratrin has attracted the attention of the profession but very little till within a few years. But recent investigations and experiments have more fully developed its power and efficacy in the treatment of disease. We have used it more or less since 1840, and being fully convinced of its merit, have been led to prepare it for the profession. Like all new remedies of any merit, its valuable properties have probably been overrated by some of the more zealous of its advocates. But, after using it nineteen years, we trust that our zeal has become moderated to that degree which will allow us to speak of the Veratrin in such general terms that no one will be disappointed after fully testing it.

The Veratrin is a medicine of great power, and capable of producing serious results when recklessly or empirically administered; when given in full or over doses it produces vertigo, faintness, headache, dimness of vision, paleness, coldness, prostration, and violent emesis. When used in proper quantities, it excites diaphoresis, reduces the force and frequency of the heart's action, allays nervous excitability, subdues pain, and sometimes produces nausea and vomiting. Dose one-eighth to one-half grain.

LUPULIN.

Obtained from the *Humulus Lupulus.* (Common name, Hops.)

Properties. Tonic, hypnotic, febrifuge, nervine, etc.

Used in dyspepsia, delirium tremens, hysteria, and all affections accompanied with nervous irritability. Also to relieve afterpains, prevent chordee, and relieve the pains attendant on gonorrhœal affections. In chronic gastritis it is invaluable. Procures sleep, without producing the narcotic effects of opium, or constipating the bowels, and does not disorder the stomach. Dose, one to two grains.

HYDRASTIN.

Obtained from the *Hydrastis Canadensis.* (Common names, Golden Seal, Yellow Puccoon, etc.)

Properties. Tonic, aperient, hepatic, deobstruent, anti-septic, and resolvent.

It has an especial influence upon mucous surfaces, hence it is valuable in gleet, chronic gonourrœa, spermatorrhœa, leucorrhœa, and ulceration of the bladder, and other mucous surfaces. As an antiperiodic, some physicians prefer it to quinine. In intermittent and other forms of fever, dyspepsia, hepatic derangements, piles, and whenever a powerful tonic is required, it will be found an invaluable remedy. Dose, one to two grains.

STILLINGIN.

Obtained from the bark of *Stillingia Sylvatica.* (Common names, Yaw Root, Queen's Delight, etc.)

Properties. Alterative, aperient, deobstruent, depurative and anti-syphilitic, diuretic and tonic.

Used in scrofula, syphilis, rheumatism, cutaneous diseases, hepatic derangements, chronic laryngitis, chronic bronchitis, all morbid discharges of the vagina and uterus, the various forms of stomatitis, and in all cases in which a general alterative is indicated, than which perhaps nothing superior has yet been discovered. It exercises an especial influence over mucous surfaces; hence, in the treatment of uterine diseases, cystic and urethral inflammation, chronic inflammation of the bowels, accompanied with ulceration, and chronic dysentery, it fulfills important indications. Dose, two to four grains.

ACONITIN.

Obtained from the root of *Aconitum Napellus.* (Common name Aconite.)

Properties. Narcotic, diaphoretic, diuretic, stimulant, resolvent and resorbent.

Used in all diseases arising from suppressed peripheral secretions, as well as in all chronic diseases of the fibrous membranes, muscles, periosteum, in exudations and paralytic nervous diseases which arise from local metastatic, rheumatic and asthritic affections of the nerves, asthenic and torpid dropsies, rheumatism, asthma, scrofula, syphilitic and mercurial pains in the bones, scabies, ophthalmia, etc. Dose, one-twenty-fourth to one-twelfth of one grain.

SMILACIN.

Derived from the *Smilax Sarsaparilla.* (Common name, Sarsaparilla.)

Properties. Alterative, resolvent and detergent.

Used in scrofula, venereal diseases, rheumatism, cutaneous eruptions, etc. Dose from two to five grains.

TRILLIN.

Derived from the root of *Trillium Pendulum.* (Common names, Beth Root, Birth Root, etc.)

Properties and uses. Trillin is astringent, styptic, tonic, diaphoretic, expectorant, anti-septic and alterative. Used in the treatment of hemorrhages, either external or internal, leucorrhœa, and all diseases of the mucous tissues, prolapsus uteri, immoderate flow of the lochia, restraining without suppressing, hooping cough, asthma, etc. Dose, from two to four grains.

SCUTELLARIN.

Obtained from the *Scutellaria Lateriflora.* (Common names, Scullcap, Blue Scullcap.)

Properties and uses. Anti-spasmodic, nervine and tonic. The Scutellarin is a valuable nervine, quieting the nervous system in many cases, where other nervines entirely fail. For children, it is better, in most cases, than the preparations of opium. It has been found very serviceable in the treatment of convulsions, neuralgia, chorea, and all forms of nervous derangement. The nervous excitability, restlessness, and wakefulness attending acute and chronic diseases can usually be controled, and sleep procured by the administration of this remedy.

Dose, from one to two grains.

RHUSIN.

Obtained from the leaves of the *Rhus Glabrum.* (Common names, Sumach, Upland Sumach.)

Properties and uses. Tonic, astringent and anti-septic. A useful remedy in the treatment of dysentery, diarrhœa, febrile diseases, diabetes and leucorrhœa. It is healing and soothing to the mucous membrane of the stomach and bowels, and is very useful in the treatment of chronic diarrhœa, occurring in consumptive patients. Dose, one to two grains.

STRYCHNIN.

Derived from the seeds of *Strychnos Nux Vomica.* (Common name, Nux Vomica.)

The strychnin manufactured by us, differs from the strychnine of commerce, being a combination of the three therapeutic constituents of the seeds, viz.: strychnia, brucia, and a neutral principle. The strength of our strychnin as compared with strychnine, is as 12 to 8. Thus, if the dose of strychnine be one-twelfth of one grain, the dose of strychnin will be one-eighth of one grain, that is, one-third more than of the strychnia. For properties, uses, doses, etc., the practitioner is respectfully referred to the U. S. Dispensatory, and other standard works on Materia Medica.

GOSSYPIN.

Obtained from the bark of the root of the *Gossypium Herbaceum.* (Common name Cotton Root.)

The bark of the Cotton Root has been highly recommended as an emmenagogue and diuretic. We have prepared the Gossypin, at the earnest request of several physicians, who have used the crude article to a great extent. Dose, from one to five grains.

RUMIN.

Obtained from the *Rumex Crispus.* (Common names, Yellow Dock, Sour Dock, etc.)

Properties, Anti-scorbutic, detergent, alterative, and combining mild astringent and laxative properties, much like Rhubarb. Used in scorbutic, cutaneous, strumous, carcinomatous and syphilitic affections. Dose, two to four grains.

SENECIN.

Obtained from the *Senecio Gracilis.* (Common names, Life Root, Cough Weed.)

Properties. Diuretic, diaphoretic, febrifuge, tonic, pectoral and emmenagogue. Used in gravel, strangury and other affections of the urinary organs, amenorrhœa dysmenorrhœa pulmonary affections, hepatic derangements, pains in the chest, hysteria, hypochondria and dysentery. Exercises an especial influence over the female reproductive organs. Dose, two to four grains.

VIBURNIN.

Obtained from the *Viburnum Oxycoccus.* (Common names, High Cranberry, Cramp Bark.)

Properties and uses. Anti spasmodic. It is very useful in hysteria, asthma, cramps of the limbs, convulsions during pregnancy, etc. Dose, one to three grains.

XANTHOXYLIN.

Obtained from the *Xanthoxylum Fraxineum.* (Common name, Prickly Ash.)

Properties. Stimulant, tonic alterative, and sialogogue. Used in rheumatism, scrofula, paralysis, indigestion, colic, syphilis, hepatic derangements, and joined with tonics to quicken their appropriation by the nutritive functions. There is perhaps no better *permanent stimulant* than this. Hence in cold and languid states of the system, it is of great value. As a constitutional remedy in the treatment of old and indolent ulcers, it has proved remarkably efficacious. It has been found invaluable in the treatment of intestinal ulceration, and combined with Stillingin, in the atonic condition which frequently follows an attack of cholera infantum. In hemorrhage of the stomach, bowels or urinary organs, we have found it an invaluable remedy, Dose, one to two grs.

SANGUINARIN.

Obtained from the *Sarguinaria Canadensis.* (Common names, Red Root, Blood Root, etc.)

Properties and uses. Emetic, expectorant and alterative. Used in diseases of the chest, influenza, rheumatism, diseases of the liver, etc. Dose, one to three grains.

OILS.

CAPSICIN, OR OIL OF CAPSICUM.

Obtained from the *Capsicum Baccatum*, (Common names, Bird Pepper, Cayenne Pepper, etc.)

The Capsicin is an oleo-resinous substance, of a reddish brown color, and readily soluble by heat, alcohol, ether, and oil of turpentine.

Properties and uses. A powerful stimulant. Beneficially used in case of an enfeebled or inactive stomach, dyspepsia, lethargic condition of the system, etc. In the treatment of scarlet fever, and malignant sore throat, it is a most valuable remedy, both internally and as a gargle. As a gargle, it must be greatly diluted. As a rubefacient the Capsicin is an elegant remedy. It acts very speedily, and is not liable to produce vessication. One ounce of the oil, in from four to eight ounces of alcohol, makes a strong rubefacient liniment. In this form it is beneficially used in rheumatism, paralysis, sciatica, or, in severe cases, it may be used of full strength. Dose, as a stimulant, one or two drops on a little sugar. After thoroughly triturating it may be dissolved in a little hot water, if desired.

OIL OF ERIGERON.

Obtained from the *Erigeron Canadensis.* (Common names, Canada Fleabane, Scabious, etc.)

Properties. Astringent, styptic and diuretic.

Used internally in the treatment of uterine hemorrhage, menorrhagia, dysmenorrhœa, hemorrhage from the lungs, stomach, kidneys and bowels, and gonorrhœa.

Externally, dissolved in alcohol, for rheumatic and other painful swellings; to the throat, in laryngeal and bronchial affections, and applied to chronic enlargement of the tonsils, speedily discuss them. For external use, one ounce to four or eight of alcohol. We believe, as the result of experience, that the oil of the Erigeron Canadensis is possessed of superior therapeutic powers to that obtained from the E. Philadelphicum. Dose, 2 to 4 drops.

OIL OF POPULUS TREM.

Stimulant, tonic, and diuretic. Used in bronchitis, dyspepsia, and affections of the kidneys. Dose, from five to ten drops.

OIL OF STILLINGIA.

Obtained from the *Stillingia Sylvatica.* (Common names, Queen Root, Yaw Root, etc.)

Used externally as a counter-irritant and discutient. Dissolved in alcohol, either alone or combined with the oils of Lobelia and Cajaput, it is applied to painful rheumatic swellings, contractions of the joints, curvature of the spine, and to discuss indolent tumors.

OIL OF XANTHOXYLUM FRAX.

A permanent and diffusive stimulant.

Used for the same purposes as the other preparations of the plant.

Dose, two to five drops.

OIL OF SOLIDAGO ODORA.

Common name, Sweet-scented Golden-rod.

Properties. Aromatic, stimulant, carminative and diuretic.

Used in suppression of urine, and in colic pains of infants. Used also for inhalation in diseases of the respiratory organs. Dose from two to five drops,

OLEO-RESIN OF LOBELIA INFLATA.

Obtained from the leaves of *Lobelia.*

Properties. Emetic, relaxant, expectorant, etc. Dose, one to three grains.

OIL OF LOBELIA, OBTAINED FROM THE SEED.

Properties similar to the Lobelia.

The oil is given in doses of two to five drops, triturated with a little loaf sugar, to be repeated as occasion may demand.

POWDERS.

LEONTODIN.

Obtained from the root of the *Leontodon Taraxacum.* (Common name, Dandelion.)

Properties and uses. Tonic, diuretic and aperient. It is applicable to the diseases of the digestive organs, and to hepatic derangements. It is used in congestion and chronic inflammation of the liver and spleen, in dropsical affections dependent on obstructions of the abdominal viscera. It is contra-indicated in acute inflammatory diseases. Dose, two to four grains.

B. KEITH & CO.'S CONCENTRATED TINCTURES.

These tinctures are among the greatest improvements in modern pharmacy, and embrace the peculiar features for which our preparations have become so celebrated. They combine the essential qualities of definiteness, uniformity and reliability. The various proximate active principles are isolated singly, divested of all non-medicinal admixture, carefully estimated and re-dissolved in alcohol in exact proportions. Hence they resemble a definite solution of Morphia, Quinia, or any other definite vegetable alkaloid, and invariably represent a uniform amount of therapeutic power. They are concentrated, definite solutions of the entire medicinal constituents of the plants from which they are severally derived.

(*For List of* Con Tinctures, *see page* 15.)

Wine Tinc Lobelia Inflata.—This preparation having met with great favor from all who have employed it, we have been induced to put it up in quantities for the use of the profession. It is calculated to fulfill all the indications for which the plant is prescribed, and will be found to operate more kindly than any other preparation of the plant. For the purpose of an emetic, it is superior to any other preparation we have ever used.

Dose, as an emetic, from one to four fluid drachms. As a diaphoretic and expectorant, from five to twenty drops.

Con. Comp. Stillingia Alterative:—R.—Rad. Stillingia Sylvatica, Rad. Corydalis Formosa, Rad. Phytolacca Decandria, Rad. Iris Versicolor, Cort Xanthoxylum Fraxineum, Fol. Chimaphila Umbellata, Sem. Cardamomum.

This is a powerful and efficient alterative, and is adapted to fulfill the morbid indications of disease to, perhaps, a greater extent than any other preparation.

In the treatment of syphilitic affections it is invaluable. In strumous, cancerous, cutaneous, and rheumatic affections, and, in short, in every morbid cachexy, where a powerful alterative and depurative is indicated, it may be advantageously employed. In bronchitis, hepatic derangements, leucorrhœa, etc., it has proved of eminent service.

Dose, one to five drops, in a little water sweetened if desired.

Bronchitis drops:—R.—Rumex Crispus, Rhus Glabra, Hyoscyamus Niger, Uvularia Perfoliata, Cypripedium Pubescens.

Properties. Alterative, tonic, stimulant, sedative, nervine, and astringent. An invaluable remedy in the cure of bronchitis. In the treatment of bronchitis and throat diseases, these drops should be applied once or twice a day, as far as possible, to the parts affected, especially in laryngitis. Dose, from five to ten drops, to be repeated according to the urgency of the case.

TAKE NOTICE.

Being constantly in want of Crude Medicinal barks, roots and herbs, those having facilities for obtaining them in large quantities would confer a favor upon us by forwarding their proposals, embracing a list of articles, quantities, and prices.

But be it distinctly understood, that in no case do we hold ourselves bound to accept any consignment of roots, barks, or herbs, unless duly contracted for by us. Due notice of this fact will prevent any misunderstanding.

Neither will we accept any articles not properly gathered and cured.

All roots and barks must be procured in the fall or winter. Leaves should be gathered just before, or while the plant is in blossom.

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LIST OF CONCENTRATED MEDICINES,

WITH THE CHARACTER OF THE SEPARATE ACTIVE PRINCIPLES, THE AVERAGE DOSES, AND PRICES ANNEXED.

Explanation of the Abbreviations.—Rd., Resinoid; Res., Resin; Neut., Neutral; Alk., Alkaloid; M. R., Muci-Resin; Amyg., Amygdalin; Phl., Phloridzin; Pic., Picrin.

PAGE.	POWDERS.	PRINCIPLES.	Av. dose in grs.	Price ℥oz
10	Aconitin	Alk Neut.	1-24to1-12	3 00
3	Ampelopsin	Res. Rd Neut.	2 to 5	1 50
5	Alnuin	Res. Rd. Neut.	2 to 10	75
3	Apocynin	Rd. Res. Neut.	½ to 3	2 00
4	Asclepin	Rd. Neut.	1 to 5	1 50
6	Atropin	Alk. Neut.	1-24to1-12	4 00
3	Baptisin	Res. Neut.	1 to 8	1 00
3	Barosmin	Res. Neut.	1 to 3	2 00
4	Caulophyllin	Rd. Neut.	2 to 5	75
5	Cerasein	Rd. Neut. Amyg. Phl. Pic	2 to 10	1 00
4	Chelonin	Rd. Neut.	2 to 5	1 25
4	Chimaphilin	Res. Rd. Neut.	2 to 5	1 00
3	Collinsonin	Res. Neut.	2 to 5	2 00
8	Colocynthin	Rd.	½ to 2	2 00
4	Cornin	Rd. Neut.	2 to 5	1 00
5	Corydalin	Res. Rd. Alk. Neut.	1 to 3	3 00
5	Cypripedin	Rd. Neut.	2 to 4	1 00
5	Digitalin	Rd. Alk. two Neut.	⅛ to ¼	1 50
4	Dioscorein	Res. Neut. M. R.	2 to 5	1 50
3	Euonymin	Rd. Alk. Neut.	1 to 4	2 00
5	Euphorbin	Rd. Neut.	1 to 3	1 50
3	Eupatorin (perfo.)	Rd. Neut. Alk.	1 to 4	75
5	Eupatorin (purpu.)	Rd. Neut. Alk.	2 to 5	1 50
4	Fraserin	Res. Neut. and M. R.	2 to 10	1 00
6	Gelsemin	Rd. Alk. Neut.	¼ to 1	2 00
7	Geranin	Rd. Tannin.	2 to 5	60
11	Gossypiin	Rd. Neut.	3 to 8	2 00
6	Hamamelin	Res. Neut.	1 to 3	1 00
7	Helonin	Neutral.	2 to 5	1 00
10	Hydrastin	Res. Rd. Alk. Neut.	1 to 3	1 25
9	Hyoscyamin	Res. Rd. Alk. Neut.	⅛ to ¼	2 50
9	Iridin	Res. Rd. Alk. Neut.	1 to 3	1 00
7	Jalapin	Res.	2 to 5	1 50
6	Juglandin	Rd. Neut.	2 to 10	75
8	Leptandrin	Rd. Res. Alk. Neut.	2 to 5	60
12	Leontodin	Rd. Neut.	2 to 4	1 00
10	Lupulin	Res. Rd. Neut.	1 to 4	75
9	Lycopin	Rd. Neut.	1 to 4	1 00
9	Macrotin	Rd. Alk. Neut.	½ to 2	60
9	Menispermin	Rd. Alk. Neut.	1 to 5	1 00
7	Myricin	Rd. and Tannin.	2 to 5	60
8	Phytolacin	Rd. Neut.	½ to 3	1 00
7	Podophyllin	Rd. Alk. Neut.	½ to 3	60
9	Populin	Rd. Neut.	2 to 5	50
8	Prunin	Rd. Neut. Amyg.	1 to 3	75

PAGE.	POWDERS.	PRINCIPLES.	Av. dose in grs.	Price ℥oz.
8	Rhein	Rd. and two Neut.	1 to 4	2 00
11	Rhusin	Rd. Neut.	1 to 3	1 00
11	Rumin	Rd. Neut.	1 to 3	75
11	Sanguinarin	Res. Rd. Alk. Neut.	½ to 2	75
11	Scutellarin	Res. Rd Neut.	2 to 5	1 50
11	Senecin	Rd. Neut.	2 to 5	1 50
10	Smilacin	Rd. Neut.	2 to 5	1 50
10	Stillingin	Res. Rd. Alk. Neut.	2 to 5	1 25
11	Strychnin	Two Alk. and Neut.	1-32 to 1-16	3 00
10	Trillin	Rd. Neut M. R.	2 to 5	1 00
9	Veratrin	Res. Rd Alk and Neut.	⅛ to 1	1 50
11	Viburnin	Rd. two Res. and Alk.	2 to 5	1 50
11	Xanthoxylin	Rd. Neut.	2 to 5	2 00

CONCENTRATED TINCTURES.

		Doses in drops.	Price ℥bot
In two oz bottles.			
Con. Tinct.	Aconitum Napellus,	1 to 5	$0 75
" "	Apocynum Cannabinum,	5 to 15	75
" "	Atropa Belladonna,	1 to 5	75
" "	Barosma Crenata,	2 to 10	50
" "	Cannabis Ind.	5 to 15	50
" "	Chelone Glab.	5 to 10	50
" "	Collinsonia Cana.	5 to 20	50
" "	Digitalis Purpu.	1 to 4	50
" "	Euonymus Amer.	2 to 10	50
" "	Eupatorium Purpu.	2 to 10	50
" "	Gossypium Herbace.	5 to 20	75
" "	Hyoscyamus Nig.	5 to 20	50
" "	Rhus Glabrum,	2 to 10	50
" "	Hydrastis Canad.	5 to 15	50
" "	Scutellaria Later.	2 to 10	50
" "	Senecio Gracilis.	2 to 10	50
" "	Smilax Sarsapar	10 to 20	50
" "	Strychnos Nux. Vom.	½ to 1	50
" "	Xanthoxylum Frax.	2 to 5	50
" "	Gelseminum Semp., 6 oz. bot.	5 to 20	1 00
" "	Veratrum Viride, 4 "	1 to 8	75
Wine "	Lobelia Inflata. 6 "	2dr. to 2 oz	50
Con. Comp.	Stillingia Alterative, 1 "	2 to 10	75

Oils.

Oil of Capsicum,	½ to 2	75
" Erigeron,	2 to 10	40
" Lobelia,	½ to 2	1 50
" Populus,	5 to 10	50
" Stillingia,	½ to 2	1 00
" Solidago,	2 to 5	50
" Xanthoxylum,	2 to 5	50
Oleo-Resin Lobelia Inflata,	1 to 4 grs	75

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THE CHICAGO
MEDICAL JOURNAL.

VOL. III. FEBRUARY, 1860. NO. 2.

Original Communications.

ARTICLE I.

CASE OF OBSTRUCTED LABOR,

FROM AN EXOSTOSIS, AND ADHESION OF VAGINAL WALLS—OPERATION FOR CUTTING THE STRICTURE—CRANIOTOMY AND DELIVERY—DEATH ON THE FIFTH DAY.

REPORTED BY G. W. PHILLIPS, M. D. OF DIXON, ILL.

Before giving the particulars of this case, it will be necessary to give a description of the first labour, with the circumstances that led to the chief complication, (the occlusion of vagina) the facts being furnished me by Dr. N. W. Abbott.

A year and a half ago, Mrs. McG—— had her first labour; the labour was obstructed by the narrowing of the antero-posterior diameter of the superior strait, by a tumour (probably an exostosis) growing from the promontory of the sacrum and last lumbar vertebra—the labour not being completed until the fifth day; the second stage occupying more than forty-eight hours. The head presented in the first position, and as the pains were strong, and exhausting, the attending Physicians performed craniotomy, afterwards ergot was given, then forceps used; convulsions occurring, an attempt was made to turn, all however without success. At this stage, the patient was seen by Dr. Abbott, who found her having frequent con-

vulsions and unconscious; the head partly collapsed, was lying in the pelvic cavity, with one foot by its side; returning the foot above the head, he soon delivered with the blunt hook.

The patient was left in a very prostrate condition, and unconscious, her Physicians not expecting her to live but a few hours; she was however, in a few days reported as doing well.

Danger from adhesions of vaginal walls was pointed out to her consequent upon sloughing from long continued pressure of head; and the necessary treatment proposed; the patient however refused to be treated; consequently adhesion of vaginal walls took place.

Within nine months, she again became pregnant. During the early months she was examined by several physicians who were unable to pass a small probe beyond the stricture, there seeming to be complete occlusion of vagina. An operation was advised, but refused.

Such were the complications attending the second labor of Mrs. McG., to which I was called by Dr. Abbott, in consultation, the morning of the 10th of November last. Age of patient, twenty-five; stout, hearty looking Irish woman.

Labor commenced twelve hours previously; pains regular, and gaining force; upon examination, we found, two inches within the vagina, a thin, firm fold or band encircling the entire circumference of the vagina, and into which the end of the finger could barely pass, the edge feeling tense and sharp; the pains growing stronger; the stricture soon dilated so as to admit the finger into the cavity of the pelvis, finding the os largely dilated, and head engaging in superior strait in second position; the liquor amnii having already been evacuated; it was evident that the labor could be successfully terminated only by the dilatation or rupture of the band, by pressure of the advancing head, or by division of the stricture with the knife. After waiting several hours to observe the dilatability of the stricture, or to see if the border would give way, the stricture having dilated so as to admit two fingers breadth, the border becoming very tense, pains heavy, and fearing rupture of vagina above the stricture, we decided to cut the band.

By a careful examination, the stricture was found to be well

defined, and formed by adhesion of the mucous membrane only; the thickest and densest part being upon the right side of vagina. Giving the patient chloroform, the band was cut transversely and to the right, the band immediately spreading apart so as to admit three fingers breadth; the pains continued regular and strong, the head slowly advancing and dilating the band, until midnight, when they gradually became weak, so that by next morning they were inefficient to advance the head.

The passage of the head through the superior strait was delayed, not only by the narrowing of the strait, but by the uterus being tilted to the right by the exostosis, and kept there, so that the axis of uterus and strait did not correspond, the force thus exerted by uterus being wasted. Ergot was now given, causing the pains to become stronger, bringing the head to engage in inferior strait; the strait again becoming tense, was again cut, expanding so as to give sufficient room for head to pass; the head advanced, beginning to form the perineal tumor, when symptoms of exhaustion, which had shown themselves for the last six hours, became very evident; pulse quick and growing weaker, tendency to syncope; on being raised in bed, the pains becoming slight, inefficient and exhausting.

We had for several hours suspected that the child was dead, as the fœtal heart could not be heard, and the fluids from the vagina were very fetid; these signs added to the fact that no tumour formed on scalp, and bones of cranium shut fast, so as to close fontanelles made it pretty evident that the child was dead, and had been so some time. As the life of the child was out of the question, it was clear that artificial delivery must be effected speedily; accordingly craniotomy was performed, brain broken down, and head delivered by means of blunt-hook. By traction upon cord placenta soon followed, uterus contracted down well; the child was large and fully developed, the color of cord and membranes was a dirty yellow, the cord was soft and crepitated between the fingers—evidences of putrefaction. The substance of placenta was softened and easily torn, but not decomposed as much as cord; the child showed no marks of decomposition.

The death of the ovum probably took place within a few weeks of labor; what could have produced the death of the ovum is difficult to say; there was no structural degeneration of placenta, cartilaginous or otherwise; no induration from deposit of lymph in substance of placenta, or deposit of lymph upon its surfaces, showing evidence of inflammation; placenta of usual size.

The labor occupied forty-two hours, twelve hours for first stage, and thirty for second.

The patient was ordered stimulants and opium, and left in a favorable condition, except exhaustion, from a prolonged second stage. Forty-eight hours after, when seen by Dr. Abbott, she was still weak, pulse quick, otherwise comfortable; the uterus about the size of one's head, but contracted down; upon applying pressure coagula were expelled. Forty-eight hours from this time, Dr. A. was sent for, as twelve hours previously the patient had had a chill, the cabin being cold and damp, in consequence of there having been a big washing in it on that day. The Dr. found her unconscious, skin cold, pulse thready and weak, pupils dilated, respiration weak, no tenderness or fullness of abdomen; uterus contracted down well; she died twelve hours after. No post-mortem examination.

What was the cause of death? She did not die from inflammation, as a result of an obstructed labor, and the operation for cutting the stricture; nor of exhaustion, from a prolonged second stage, as the symptoms, at no time, previous to the chill approached a collapse. I can find but one probable cause of death, and that is the absorption into the blood of a poison from the putrefying cord and placenta, prostrating the nervous energy so completely, that reaction did not take place after the initiatory chill, which if it had, the phenomena would have been those of puerperal fever.

Quina in Febrile Exacerbations.—The veteran, Dr. Cartwright of New Orleans, in a letter published in the Medical Journal of North Carolina, claims the origination of the use of Quina in large doses in febrile exacerbations. In April, 1826, he recommended this now standard practice, particularly in Pneumonia Biliosa.

ARTICLE 2.

CASES OF DISEASE OF THE LOWER JAW,

FOR WHICH RESECTION AND REMOVAL OF THE PAROTID AND SUBMAXILLARY GLAND WAS PERFORMED.

BY DANIEL BRAINARD, M. D.,

Prof. of Surgery in Rush Medical College, Corresponding Member of the "Society of Surgery," Paris; of the Medical Society of the Canton of Geneva, Switzerland, etc.

The removal of parts of the lower jaw for necrosis must be an operation as old as the science of surgery. Every surgeon has had occasion to remove pieces of the bone, either its alveolar processes, its body, its condyle, its ramus, or its coronoid processes. I have myself removed all these parts, and some of them many times. Neither is the removal of the whole of the bone when necrosed, a very new, rare or difficult operation. As early as 1817, a case was reported in the Memoirs of the Academy of Surgery. Since that time, numerous instances have occurred when it has been repeated. I have examined the jaw removed by Dr. Carnochan, and found that the body and chin necrosed. In the case of Dr. James Wood, the whole of the bone was, I believe, in that state.

The removal of a considerable part of the bone for disease, whether enchondroma, osteo-sarcoma, or other tumors, is quite another and more difficult operation. I am unable to say by whom it was first performed, but the credit is generally given to Dr. Diedrich, of Kentucky. Dupuytren performed it, it is said, as early as 1812. And Dr. Mott, in 1822, removing a much larger portion. Since that time, cases are counted by hundreds, and there are few surgeons who have not contributed more or less of them.

I have three times dis-articulated the lower jaw, removing twice a little less than half, and the other just half of it. In each case, the parotid gland, or what remained of it after being subjected to the pressure of the tumor, was removed.

Case 1. This was published in the American Journal of Medical Sciences for October, 1853, but is re-published here on account of the local interest which is at this moment attached to the subject among a small circle of physicians in this city.

"W. S., æt. 32 years, formerly of good constitution, first perceived in October, 1850, that the movements of the lower jaw were imperfect. Soon after, he noticed a swelling at the left side of the articulation. It was hard, unattended with pain or discoloration, and increased slowly. In February, 1852, an abscess formed upon the side of the neck, below the angle of the jaw, from which, when opened, a fistulous passage leading to the bone, remained. Some months afterwards, another abscess formed in front of the ear, from which pus and saliva were discharged. Another formed upon the zygoma. During the whole of this time, the patient's health was not materially impaired.

He was treated principally with different preparations of iodine, internally and externally.

Present state, Jan. 19, 1853. There is a hard tumor, extending from the temple above, below the angle of the jaw, and from the middle of the cheek to the ear. It is very prominent and irregular, and has on its surface three fistulous openings, corresponding to the situation of the abscesses. They were found to converge toward the articulation. The mouth could be but slightly opened, but enough to enable me to perceive that the tumor encroached upon the fauces and pharynx. There is pain most severe at night. When he eats, the saliva flows freely from the middle fistula. His health is good, no sallowness, and only a little emaciation, which dates from about a month.

Operation performed Jan. 27, 1853, with the assistance of Drs. Herrick, Freer, and Morfit, as follows:

The patient having been placed under the effect of chloroform, a curved incision was made, commencing an inch above the zygoma, carried down in front of the ear over the angle of the jaw, and brought forward as far as the side of the chin. The flap was raised, and the integuments dissected up from the surface of the tumor behind.

The bicuspid tooth of the same side was extracted, the tissues detached from the jaw, and the bone divided with a chain saw.

At this stage of the operation, it was necessary to allow the

effects of the chloroform to pass off, as the flow of blood into the mouth and throat rendered it necessary that it should be constantly ejected.

The separation of the tumor below and within was next effected, as far back as the mastoid process, against which it was placed.

An attempt was now made to turn it upwards, but it was still almost immovable, and it was necessary to attack it from above.

The temporal muscle was divided, the zygomatic arch cut away at its anterior and posterior extemities, the masseter muscle divided, and a chisel and mallet used to separate the articulation; but the bones were so confounded together, that a part of the glenoid cavity was cut away. A lever being inserted behind the tumor, strong efforts were made to turn it forward, but without success. It was then attacked from within; the pterygoid muscles, which were semi-cartilaginous, were divided at their attachment to the pterygoid processes. The mass was then raised from its position, and its remaining adhesion separated.

The vessels which gave blood were very numerous. The facial, lingual, external carotid, and numerous smaller branches, required the ligature.

The ninth pair of nerves, the portio dura, and the dental branch of the lingual were divided.

On examining the wound, it was found to lay bare the cornu of the os hyoides, the mastoid and styloid processes, and the transverse processes of the cervical vertebræ. The internal jugular vein and the internal carotid artery were seen at the bottom of the wound. The temporal fossa was excavated, the muscles of the tongue and pharynx laid bare. The parotid gland had been partially obliterated by pressure, and no trace of it now remained.

The wound was brought together by stitches, and cold water dressings applied. A full dose of opium was administered. The operation, which lasted an hour, was well borne.

After treatment. No symptoms requiring especial notice occurred. The ligatures were all removed by the tenth day.

The wound had adhered throughout, excepting at the point where the ligatures prevented.

Dec. 5. The patient's health is good. He can sit up and walked about, but requires an anodyne at night, on account of pain.

July 17. There still remains a fistulous opening, leading to the situation of the glenoid cavity, through which a small piece of bone has been discharged. The lower jaw has fallen so much to one side that the patient cannot masticate. He is emaciated, and appears to be suffering from inanition, resulting from insufficient nourishment. He still requires anodynes to procure rest at night. There is no appearance of return of the disease.

On examination of the tumor, the bone seemed greatly enlarged in every sense, the ramus of the jaw and the angle were four times their natural thickness, the condyle partially absorbed and altered in shape. This mass, which had the appearance of bone, and from which the periosteum could readily be separated, was so soft as to be easily transfixed with a sharp instrument. The surrounding tissues were infiltrated with serum, and had an appearance like firm jelly, but after maceration, presented no appearance of morbid deposit."

Case 2. Silas Lattimer, American, aged 27 years, applied at the college clinic, Nov., 1857, on account of an enlargement of the left side of the lower jaw. It had been first perceived about two and a half years previously, when the teeth of that side became painful, loosened, and were removed. By degrees the tumor increased in size until it assumed the appearance presented in fig. 1.

The operation was performed on the 28th November, in the same manner as the preceding case, except that a little more than half the jaw was removed, including the condyle and symphysis. The patient bore the operation well, although from the liability of the blood to flow into the air passage, chloroform could be but imperfectly used. There was considerable tendency to suffocation from the falling back of the tongue on the division of its anterior attachments, but this soon ceased. He did well, and was able to return home Dec., 7th, with the wound nearly healed.

On examining the tumor, it was found to contain a soft, brain-like matter, which seemed to have been developed in the centre of the bone. It exhibited the cancer cells in a very marked degree of development with the microscope. The cavity left corresponded, in every respect, with that in the preceeding case, and the same vessels and nerves were divided.

Fig. 1.

March 12, 1858. I received the following note from him, accompanied by a daguerreotype, from which Fig. 2 is engraved. It will be seen that there remains but little deformity, although the muscular nerve of the face was necessarily denuded.

Fig. 2.

WILMINGTON, March 12, 1858.

Dr. D. Brainard: Sir—I send you my figure, which was taken March 8th. The cut is not entirely healed yet. Two pieces of bone came off the end that was sawed off. I think the *disease* was all taken out, as the slivers appeared sound.

Yours with respect, SILAS LATTIMER.

Case 3.—Mrs. C., aged 31 years, consulted me April 28th, 1858, on account of a tumor situated on the lower jaw. The appearance of it at this time is well represented in the figure. It follows the natural outline of the jaw extending from the zygomatic arch to the middle of the base of the jaw, backward to the mastoid process. It was of stony hardness, not painful nor discolored.

Fig. 3.

History.—In November, 1857, Mrs. C. had a *tooth-ache*, for which

the wisdom tooth was extracted, after which considerable swelling of the whole of the right side of the face occurred, accompanied with much febrile reaction. When this subsided some enlargement of the bone remained, this has gradually increased until the present time.

Operation.—This was performed May 1st, 1858, with the assistance of Doctors Powell, Durham, Winer and several students. The method followed was so nearly that adopted in the preceding cases that details are unecessary. The zygoma was removed, the pteregoid muscles were divided close to their attachment to the processes. The tumor was so closely adherent to the styloid process, that this broken, the parts were very vascular and many ligatures were required. The external carotid artery was divided and tied.

August 30. Wound nearly all healed by the first intention, patient taking food freely and free from pain.

September 8. Returned home in good health and with little deformity. Figure 3 represents her appearance at that time. At the present time of writing, this March, 1858, there has been no return of the disease.

I have removed parts of the lower jaw for tumors of various kinds, in a large number of cases, of several of which no record is preserved. The following two cases are among the most remarkable.

Case 17.—Ole S——, Norwegian, aged about 45, entered the Mercy Hospital August 23d, 1855, with a cancerous tumor involving the anterior part of the lower jaw. The history of the case as far as could be learned, was as follows:—About one year previously he had a pain and looseness in the incisor teeth of the lower jaw, for which he had several extracted, soon after there sprung up from the several sockets, a fungus growth which was cut away, this was speedily reproduced, and about six months prior to his presenting himself at the Hospital this was removed by an operation, the alveolar process, and a part of the upper edge of the jaw being removed by a saw. The wound cicatrized and for a time a cure seemed to have been effected, but in a few weeks the disease reappeared, and at the time of his entrance into the Hospital

presented the appearance of an enlargement of the bone in every direction, pushing back upon the tongue and rendering swallowing difficult. Upon the upper surface were several holes and irregularities exhibiting unmistakable signs of cancerous humor to the present time.

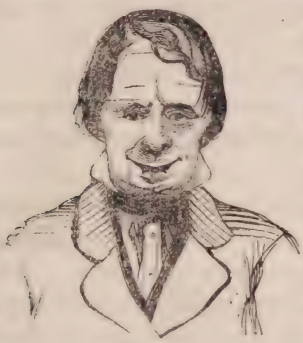

Fig. 4.

Operation.—An incision was made from one angle of the jaw to the other, along its base and across the chin, one flap was dissected upwards and another downwards, the mouth being laid open by the former dissection. Section of the bone was made on each side by means of the chain saw, behind the last molar tooth. The hemorrhage was severe and eight arteries required ligature. At the moment of severing the anterior attachments there was a tendency to strangulation from the tongue falling backward, this was relieved by an assistant holding the tongue forward for a time, and afterwards by placing the patient on his face, which position he was obliged to keep for several days, particularly when sleeping.

The patient was kept fully under the effect of chloroform, and bore the operation well.

On cutting into the tumor it was found to consist of a firm mass surrounding the bone resembling schirru, cracking under the knife. No cancer cells were found by the microscope, fibres, blood globules and granular matter, which seemed like coagulated albumen, were the principal elements observed.—At the point where the tooth had been extracted, there was a considerable cavity containing reddish pus and blood, otherwise the tissue of the bone was but little altered.

In this case not only the part of the jaw as far forward as the biscuspid tooth, but all the parotid and sub maxillary glands were removed. They were both diseased, and so firmly adherent to the tumor that they could with difficulty be separated from it. The parotid particularly found a part of the diseased mass.

ARTICLE 3.

DIPHTHERIA.

BY W. GODFREY DYAS, M. D., CHICAGO.

[Continued from Page 22.]

In the treatment of all epidemic diseases, the science and practice of therapeutics must be subordinate to the prevailing medical constitution.

The external agents that concur in the formation of the atmosphere, and which are in relation to the animal economy, are collectively termed the *atmospheric constitution*. Now certain modifications are impressed on the organism by these agents either suddenly and violently when they are exaggerated in degree, or more slowly and continuously, though less in degree.

To the former, may be traced the cause of various inflammatory affections of internal organs; in the latter, a less marked, yet more prolonged action, whether accompanied or not by some new element in addition to the usual elements of the atmosphere, may determine successive and special changes in the system. It is to these changes thus effected, that the phrase *medical constitution* is applied. It is the transition state between health and positive disease. A state not clearly expressed, yet notwithstanding seen through the attendant derangement of the digestive organs, oppressed nervous centres and general sense of indisposition that prevail. The whole system is acted on as the result of the slow, gradual and steady operation of a peculiar medical constitution; for not one organ only, but every apparatus of the economy, to a greater or less extent, partakes of an altered state of existence. Thus, what ever the medical constitution may be, we know it by its effects, impressed as they are, more or less, on the greater number of those who come within the sphere of its action. Yet some are much more susceptible of the impression than others. A few peculiarly constituted and some whose organs have been

habituated to this abnormal state, may not respond; but they constitute the exception, not the rule. *

Previously to the appearance of cholera in London about 28 years ago, Dr. Prout had found there the oxalic diathesis of unusual occurrence, but when that disease appeared he remarked that the urine of every individual examined, whether in apparent health or otherwise, assumed that peculiar appearance which he had been accustomed to consider as characteristic of the presence of oxalic acid. † Others complained of derangement of the digestive organs, with tendency to diarrhœa; many experienced nothing but *malaise*. These were but several modes of expression, of the prevailing medical constitution, which when fully developed constituted the *epidemic constitution*. Something similar may be seen during an epidemic of scarlatina, when there will be a general predisposition to sore throat, even amongst those who previously had the exanthem.

The modifications of the external world, and their consequent action on the organism are infinite; and if thus infinite, medical constitutions which are but the representatives of this action, will be equally numerous, and thus give rise to as various indications of practice.

Thus the epidemic dysentery in France in 1661, was almost invariably cured by vomits, whereas the same remedy in the dysentery of 1666 was as invariably followed by serious results. *

The typhoid fever epidemic in Ireland between the years 1820—30, admitted of bleeding and depressing doses of antimonials, whereas the same disease when epidemic in that country in 1847, imperatively demanded a treatment the very reverse. ‡

The disease which at present more immediately occupies our attention, is one to which the above prefatory remarks, which reflect the opinions of the distinguished editor of the Gazette Medicale, will especially apply. In some essays and papers on the subject of Diphtheria, we occasionally find wri-

* Gazette Medicale, 1833 † Prout on Stomach and Renal Disease.
‡ Mills on Fever.

ters altogether deny the Diphtheria of Bretonneau's day to be that of a more recent period; evidently not allowing for the distinctive traits of epidemics as they appear at different times and places; and forming a judgment apparently from the result of merely their own individual and therefore limited experience, affect to ridicule the practice of others. The disease is essentially the same as it was then, but accidental circumstances have modified it, and a knowledge of these will be the key to its successful treatment.

Diphtheria has been seen under a croupal form; has been also seen in its most malignant type without croup; and again where little more than *malaise* and slight soreness of throat, with indistinct manifestation of false membrane were the symptoms. Now it will be invariably found that the more croupal the symptoms, the less asthenic will be the disease; whereas in the malignant form uncomplicated with extension to the larynx, the contrary obtains. This will, to some extent explain Bretonneau's advocacy of calomel in Diphtheria. Dr. Meigs approved of it. In addition, he recommended general bleeding, and yet he had considerable success. Others have also used calomel and recorded their approval of it. We must suppose that in these several instances, each particular medical constitution of the day carried with it peculiar therapeutic indications which experience alone taught physicians to fulfill.

As Diphtheria has appeared of late, and to such we mean to confine our remarks, we cannot think favorably of the administration of mercury. Even before the disease explodes, it will have been preceded by a depressed state of the system, an altered condition of the blood and a predisposition in the organs to receive a still further morbid impression; for it must be remembered, that a previous medical constitution had been in operation, diminishing the capability of resistance on the part of the system, and thus preparing it to admit of disease. In such a state of things, calomel unless it positively neutralizes some morbid material, or counteracts some morbid action in the blood, is incapable of effecting anything but mischief. We are not aware of any writer recommending its administra-

tion in Diphtheria with either view. Nor does the record of cases detailed of late lead us to infer that such effects followed its exhibition. The most that has been proposed, is to change the action of the capillary system and thus to control the formation of the false membrane, or to lessen plasticity of the blood, and in this way to rob it of the material exuded on the surface of the mucous membranes.

But a *direct* action effected by mercury on the general capillary and absorbent systems, is though a long cherished yet an erroneous opinion. Mercury *indirectly* promotes absorption and counteracts effusion by impoverishing the blood and depriving it of its fibrin, albumen and corpuscles. Thus, the material of which the effusion consists is diminished, and if the latter had been already poured out, the absorbents, in order to restore to the blood an ingredient, of which the system feels the want, will, in obedience to some law of adaptation, take up nutritive matter wherever they can find it.

The exhibition of mercury in Diphtheria with this view, is based on a supposed analogy to croup. The two diseases, though having some features in common, are however essentially different, and besides, the points of difference are so striking and involve such important considerations, as altogether to forbid similar treatment. In croup, there is increased fibrin in the blood, not a putrid crasis nor a tendency to it, as in Diphtheria; in the one, there is the sthenic type of fever, in the other, a typhoid, or even no fever whatever; the former is not preceded by a depressed, nor followed by a cachectic state; these conditions more or less usher in and supervene on the symptoms of the latter. Alkalies, salines, quinine and iron, have each their advocates in Diphtheria. Alkalies are recommended with the view of diminishing the fibrin of the blood; but it has been already shown that the disease may be complicated with scurvy, an affection in which there is a surplus of alkalies, with a deficiency of fibrin in the circulation; and nevertheless Diphtheria has declared itself, thus falsifying the theory on which the recommendation is based.

Chlorate of Potash is a favorite remedy with many. Generally employed empirically or on the supposition that there

is here a deficiency of the oxygen required for the maintenance of the vital force, and that a necessity exists for raising the amount to the normal standard. A few imagine that the potash when set free from its state of combination, dissolves the fibrin, from which they apprehend all the danger; but, from what has been already stated under the head of alkalies, it is evident this opinion cannot be maintained. The former view is advocated by some who have, as they conceive, derived benefit from its exhibition in affections allied to this by their more prominent general symptoms, and in connection with which, typhus fever and consecutive anæmia indicated some loose analogy. In order to explain its *modus operandi*, they suppose the Chlorate of Potash having been absorbed and decomposed in the blood, yields out of 245 grains, about 149 grains of the Chloride of Potassium, one of the constituents of blood; and 96 grains or 281 cubic inches of oxygen. This oxygen in its nascent state, in the act of separation, is in the most favorable condition to combine with matter within the sphere of its action. As it is assumed therefore, that there is in Diphtheria a deficiency of oxygen in the blood, it is conjectured that this deficiency is thus supplied. Perhaps after all, it is very much a matter of conjecture how Chlorate of Potash acts on the human organism, and on the whole it is doubtful if it possesses a great deal of therapeutic value in Diphtheria. It may be prescribed in combination with some bitter infusion, whether cascarilla, gentian or bark, in doses of from 10 to 30 grains, according to the age of the patient.—Mr. Lambden (*Lancet, Nov.* 1858) prescribes Chlorate of Potash in combination with hydrochloric acid, so as to have free chlorine in solution. He directs ℥ ii of Chlorate of Potash to be finely powdered, on which ℥ i of diluted hydrochloric acid is to be poured. As soon as the whole powder assumes a yellow color and the fumes of chlorine begin to arise, ℥ viii of water should be instantly added, by which the escape of chlorine is prevented. This may be given in the dose of a tablespoonful every one, two or three hours, according to the urgency of the symptoms.

Emetics are occasionly serviceable, especially in young chil-

dren, at the period of invasion of the disease and when the false membrane extends to the trachea. They should never be omitted when together with fever, there are foul tongue, want of appetite, and nausea early in the complaint. For very young children, perhaps some preparation of squill will be the best emetic in Diphtheria. Owing to their depressing effects, neither antimony nor ipecacuanha should be used. Alum as employed by Dr. Meigs, in doses of a teaspoonful every ten, fifteen or twenty minutes, is a certain and speedy emetic.—The Subsulphate of Mercury (*Turbith Mineral.*) recommended by Dr. Hubbard of Hallowell, Maine, is a prompt and certain means of producing emesis. It never induces catharsis, and is not followed by prostration. It may be given in doses of from two to three grains to a child of two years, and repeated every ten or fifteen minutes until vomiting takes place.—Both alum and turbith mineral are well suited to children above one year old. They are simply irritant, and like others of the same order of emetics, cause vomiting without depressing the nervous system, as antimony and ipecacuanha invariably do, from the sedative effect they exert on the vagus nerve.

Independently of their removing morbid secretions, emetics seem to effect some change in the nervous system that controls and directs the physiological transformations of the blood, and when these transformations are abnormal, the deviation from the healthy state may be corrected or modified by some impression resulting from such change. But it is on stimulants and tonics that the chief reliance, at least in our present state of knowledge, must be placed in the treatment of Diphtheria; topical applications to the fauces being at the same time employed as auxiliary to the general treatment. From the commencement of the attack, wine and nourishment should be liberally supplied. This cannot be always easily effected, as the child dreads the pain caused by deglutition. Then recourse must be had to enemata of broth conjoined with quinine and brandy. An enema of two ounces of strong beef tea with a tablespoonful of port wine may be given every second hour, and in the same way from three to five grains of Sulphate of Quinine every fourth hour. These quantities are adapted to chil-

dren of from two to four years of age. Some practitioners depend more on quinine than on iron. Unfortunately in a great majority of severe cases scarcely an opportunity is afforded to develop the good effects of either, as under every circumstance they are both slow in manifesting their action.—Some cases of Diphtheria appear rather injured than benefited by quinine. When the tongue is foul and the stomach irritable, it is better to withhold it, or should it have been begun with, to suspend it, than persist in its administration. Loss of appetite, soft compressible pulse, tremulous tongue, languor and subdued expression, are indications for its exhibition. When a foul tongue and nausea forbid its immediate use, an emetic should be at once given, which will be likely to prepare the system for its reception. The best tonic perhaps that can be used in this complaint, is the bitter wine of iron as prepared by Mr. Thompson. It contains one grain of Wetherell's precipitated extract of bark and two grains of citrate of iron in a teaspoonful of sherry wine. Some prefer the tincture of the sesquichloride of iron in doses of ten to fifteen drops every third or fourth hour.

Whilst treating a case of Diphtheria, it must not be forgotten how frequent a sequela of this disease anæmia proves. By bearing this in mind we are possessed of the key to the management of those several consecutive disorders that betray derangement of the circulation and nervous system. Purpura, dropsy and paralysis may still have to be encountered, and by no means can they, so efficiently, as by preparations of iron. In whatever the *materies morbi* of the disease may consist, it has at least one action easily appreciated by its results, it invariably diminishes the hæmatosin of the blood below its normal standard, and lessens the amount of the blood-corpuscles. Now iron is essential to the chemical constitution of hæmatosin. These considerations lead to the conclusion that as a part of the morbid process consists in reducing the amount of a necessary constituent of the blood, the supplying this constituent may, if it cannot altogether prevent evil, at least prevent its being fully developed or favorably modify it in its development. It may thus be said that in Diphtheria iron produces an action

contrary to a diseased one, yet there is no reason to suppose that it directly neutralizes the morbid action.

In treating a case of Diphtheria, local applications should by no means be omitted. Nevertheless, it ought not to be forgotten, that the disease is constitutional, and that the exudation on the fauces is merely a local manifestation. Still local applications will retard and even limit the extension of the false membrane, which by plugging up the respiratory passages may cause death. Thus they are of use, but otherwise, they are unavailing in influencing the progress of the general disease. An unmerited importance has been given them by writers, who frequently assign them in this disease a higher place than they allow to the general treatment. The principal topical remedies are the nitrate of silver, hydrochloric acid, tincture of sesqui-chloride of iron, and the chlorides of lime and soda. Nitrate of silver ought never to be applied except in solution; its application in substance has occasionally had most serious consequences; perhaps a solution of 30 grains to the ounce will give whatever benefit is to be derived from it. Hydrochloric acid may be used undiluted, or where young children are the subjects of treatment, the acid may be mixed with an equal quantity of honey. Monsell's salt of iron is a safe and manageable topical application and has been found most useful.

The paralysis so frequently consequent on Diphtheria is dependent perhaps as much on the absence of what is necessary to the due excitation of the nervous centres, as on the superadded influence of some positive materies morbi. It bears a striking resemblance to what is termed chlorotic paralysis so well described by Sandras, (*Gazette des Hopitaux, Janvier*, 1855,) and like it does not arise from a lesion of the nervous tissue. A knowledge of this fact guides us to correct therapeutic indications. The blood must be supplied with its normal proportion of hæmatosin, and this is to be effected through the agency of preparations of iron. Generous and supporting diet is not to be omitted. Sulphur baths, electricity, preparations of zinc, and valerian, are occasionally valuable auxiliaries.

In conclusion, it is to be observed that there is scarcely any case of this, or indeed of any other disease, which does not from its peculiar features require modifications of treatment that can only be determined by the judgemnt of the person in attendance, but we lay down the following summary of treatment as that which will be found most generally applicable in a large majority of cases. Early in the attack the administration of an emetic—then a gentle purgative of some mild preparation of mercury and rhubarb, and the application of a 30 grain solution of nitrate of silver to the fauces. Immediately after the bowels shall have been moved, tincture of sesqui-chloride of iron should be commenced with, alternating the doses with port wine and beef tea, and at the same time the throat may be enveloped in flannel steeped in some stimulating embrocation. Some prefer a large poultice of chamomile flowers, whilst others object to all moist applications of this kind. Under no circumstances whatever should leeches or blisters be applied, as they not only tend to still further depress the system, but are apt to be followed by cutaneous Diphtheria.

ARTICLE 3.

PHYSIOLOGY OF THE CIRCULATION.

A recent lecture, by John C. Dalton, Jr., M. D., on the above topic, published in the N. Y. Monthly Review, presents several points worthy a reprint.

Among others are the effects of a stoppage of respiration on the circulation—especially through the arterial system and cardiac cavities. As is usually described, the disturbance which results is principally because the blood finds a difficulty in passing through the lungs, and so distends the right auricle and great veins, and finally presses back on the capillary system. Experiments of Dr. Dalton show that it is not the great veins that become distended after the stoppage of respiration, but that the arterial system first becomes distended then the aorta, then the left cavities of the heart.

By artificial respiration kept up on a dog poisoned with woorara, Dr. Dalton observes that: "when the lungs are allowed to collapse unærated blue blood passes through the lungs, so that the blood in the left auricle is completely dark colored in thirty seconds"—that, "there is a slight swelling of the right and left cardiac cavities, soon after suspension of respiration"—that, "the pulmonary artery and aorta are also distended at this stage," and that, "there is no sensible distension of the vena cava." The unærated blood passes through the auricle and ventricle, the aorta and arterial system to the capillaries which "will not allow it to pass."—Stagnating in the capillary system "the blood begins to exert a backward pressure on the arteries. From the arterial system the engorgement extends to the aorta, and from the aorta to the left cavities of the heart. This state of things continues as long as the action of the ventricle continues sufficiently vigorous to give the blood an impulse towards and into the arteries. But the continued distension the heart suffers, soon begins to paralyze its action more effectually, and at the same time it can be seen that the engorgement of the arterial system diminishes, while that of the heart increases. The regular rythmical action of the left ventricle stops, it no longer discharges any blood into the aorta; and the aorta and arteries generally, by the elastic resiliency of their own walls, and the slow passage of the venous blood through the capillaries, gradually relieve themselves of the load which they contained, and return to their original size."

The effect of post mortem contraction of the cardiac fibres is to obliterate the cavity of the left ventricle and empty it of its blood. The blood is forced into the venous system and into the right side of the heart. This is the appearance a few hours after death.

Powder Marks.—Prof. Busch, of Rome, recommends as a local application to remove grains of powder imbedded in the skin after powder wounds, a solution of Corrosive Sublimate gr. v. in aq. ℥ i. On the removal of the scabs after pustulation by this agent, the grains come with it, and the subjacent surface is left smooth and healthy.

Miscellaneous.

Severe Hæmorrhage from the Tonsil arrested by the solution of the Perchloride of Iron.—The following case of severe hæmorrhage admirably illustrates the beneficial effect of the perchloride of iron as a stypic. Mr. Henry Thompson was called to see it at the Marylebone Infirmary, at midnight, on the 22d ult., and took with him a bottle of the solution of the perchloride of iron (*French Codex*) and a glass brush. He found a woman propped up in bed, pale and almost pulseless, with a large vessel of coagulated blood at her side, and the bedclothes bespattered in every direction. She could not speak so as to be understood, and finding that she was bleeding from one or both tonsils, Mr. Thompson passed his finger into the fauces and discovered a small opening, as if from an incision previously made, in the front of the right tonsil; blood was evidently flowing fast from it. Binding a piece of lint round the entire left forefinger, so as to form a mop, pressure was kept upon the wound, until he could apply the solution, which was done freely two or three times. This at once arrested the bleeding, which recommenced in a quarter of an hour, and was again stopped by the same plan. There was no return after this, and she is now recovering rapidly.

In default of the aid thus rendered by the stypic solution, Mr. Thompson had made up his mind to tie the caroted artery; but the efficacy of the treatment was so striking, that the operation was not required.—*London Lancet.*

Epistaxis of alarming character arrested by Injections of the Perchloride of Iron.—*By E. J. Fountain, M. D., Davenport, Iowa.*—I am induced to publish the following case from reading the report of "Death from Epistaxis," occurring in the practice of Dr. Triplett, of Virginia.

About two years ago, I was summoned in haste to see a young man who was reported to be in a dying condition from loss of blood. The bleeding had continued uninterruptedly for about thirty hours, escaping constantly from the nostrils, and frequently thrown out in clots from the posterior nares.

He had been attended by a German physician, who had not succeeded in arresting the hæmorrhage, and before my arrival he had abandoned the case, from motives which I need not here mention.

I found him in a frightful condition, his face, hands, linen, and much of the bedclothing, and the floor, being covered with blood. In one corner of the miserable apartment, where many people were crowded, was a pile of rags and towels, saturated with blood.

He was so impoverished that he could not support himself in an upright position, and the extreme pallor of his skin and colorless lips indicated plainly that he had lost a large quantity of blood.

I immediately plugged the nostrils, anteriorly and posteriorly, in the usual way. I supposed this would arrest the hæmorrhage, but I was mistaken. Very soon the blood escaped through the plugs in each direction, and the flow returned as profuse as before. I then removed the plugs, and rolling up two quite large pieces of fine, dry sponge, I introduced them as before, and so firmly, that I thought it would be impossible for a drop of blood to escape. I then left him, and returning an hour after, I was astonished to find the blood escaping as freely as ever. I again removed the plugs, and washing out the nostrils by injections of cold water, I pressed into each a roll of *tannin*, made into a soft mass with a little water and glycerine; I packed the nostrils full of this, but it did no good. I then introduced the plugs a third time, using compressed sponge, and forcing them in so firmly, that I feared I might have great difficulty in removing them. I then had ice applied constantly to either side of the nares, and kept the patient perfectly quiet. This answered the purpose for about half an hour, and then the bleeding returned as bad as ever. By this time the patient experienced the alarming symptoms of excessive loss of blood—ringing in the ears, occasional blindness, etc. The case looked desperate to me, while the patient, and even some of his friends, protested against further effort, as useless and cruel. I saw that it *must* be checked very soon, or it would surely be fatal. I removed the plugs with some difficulty, and washing out the nares, I passed into each a piece of nitrate of silver, about a quarter of an inch in length, carrying them back with the forceps about four inches. I also introduced a curved injecting instrument, perforated towards its extremity with a number of small openings, and forcibly injected a strong solution of the same caustic. This did no good.

It now occurred to me that the perchloride of iron might answer the purpose. I soon procured it, and after washing out the nostrils as before, I injected a quantity of the undiluted perchloride into each nostril. This immediately checked the bleeding, and proved an effectual remedy.

Twenty-four hours after this the bleeding again returned, when I repeated the injections, and with the same happy effect.

There was no recurrence of hæmorrhage after this, and the patient soon recovered so as to go about, but for quite a long time, felt the effects of the loss of so much blood, which had been so excessive as to leave him but a very slender hold upon life. I know not in what other way it could have been saved; and the publication of this may be the means of rescuing others in similar circumstances.—*Amer. Med. Monthly.*

EXCERPTS FROM THE MEDICAL PRESS.

BY J. A. A.

The medical journals of the country are exhibiting a very laudable activity in collating the more recent and reliable experiments and observations, and the results of *experience* in practice, to the prominent exclusion of merely speculative essays.

In the experimental department, the indefatigable M. Bernard still illustrates both industry and sagacity, and attracts general notice. From his recent experiments upon the "Quantity of Oxygen in the venous blood of glandular organs when in activity and repose," we extract the following: (translated by Dr. E. Warren, *Med. Jour., N. C.*)

"These experiments demonstrate that the red venous blood of the kidney (and it is presumable that the same is true of the other glandular bloods) differs from ordinary blood, in that it is not *deoxydized*. Thus is our original hypothesis verified, in as much as this blood preserves the characteristics of arterial. However, if this is true for the proportions of oxygen discovered therein, the proposition is not absolutely exact. In fact, the red glandular venous blood contains much less fibrine than the arterial; there is less water in it, because that of the secretions has been substracted; and also, it is more susceptible of alteration (decomposition), that is to say, it becomes spontaneously black much more rapidly when exposed to the atmosphere.

However this may be, in observing for the moment the veritable object of our research. *i. e.*, what concerns the proportion of oxygen in glandular venous blood, we perceive this remarkable fact—it is whilst performing their functions at the moment of secretion, that the glands permit the blood to circulate without deoxydizing it, and it is whilst they are not acting, and when no product is expelled, that the blood which escapes is dark, deprived in a great measure of its oxygen, and charged with carbonic acid.

Here again appears the antagonism between the glandular and muscular systems, to which I have often referred. In the muscles, the blackness and deoxydation of the blood passing through them are in direct proportion to the energy of their contractions. In the glands the blood is more red, and less deoxydized, in direct proportion to the activity with which the secretory function is performed. Should we not regard this antagonism in the phenomena thus made apparent, as indicating a *radical* difference both in the modes of nutrition, and the functions of glands and muscles? In a word, may we not affirm that the muscles consume oxygen in direct ratio to their activity of function—as is directly opposite with the glands? Or should we rather, in view of this singular phenomenon, conceive doubts respecting the truth of our conclusions in regard to the functional state of the glands?

I incline to the latter opinion; and I think that these researches will lead to another interpretation of that which has heretofore been esteemed the states of activity and of repose of glandular organs, and will induce us to distinguish a state of chemical activity, and another purely mechanical. I could easily adduce several arguments in support of this opinion; but I will conclude with the simple facts above enumerated, limiting myself to a simple enunciation of this obscure proposition, which will serve as a point of departure for future explorations."

Influence of Calomel on the Liver.—Dr. George Scott, of Southampton, England, as the result of four experiments upon dogs, concludes that so far from the biliary secretion being increased by the administration of calomel in large doses, it is absolutely diminished in quantity. It will occur to the careful student, that even admitting the results of the particular experiments, no practical inference is to be derived from them, except perhaps that, as as has been long claimed by

practioners in tropical climates, *large* doses of calomel are sedative rather than stimulant to the biliary apparatus.

The experiments are open to the following objections:—First, the effect of calomel in small and repeated doses is not noted; Second, the relative date of tying the common duct, is not given; Third, positive evidence in the possession of every practioner, that in the human subject, bile in large quantities can be educed by administration of the mercurial, almost at will. Positive experience must still rule, rather than questionable experiment.

Opium in Poisoning by Stramonium, etc.—Dr. T. L. Maddin, in the *Nashville Med. Record*, reports a case of poisoning by the seeds of Datura Stramonium successfully treated by Laudanum. Removal of such portions of the poison as remained in the intestinal canal, being first provided for by emesis and catharsis. The controlling power of the opiate over the constitutional disorders was distinct. Dr. M. urges the opium as a counter poison also, to belladonna, and similarly acting agents, considering "the pupil in all cases as a reliable index as to how far with safety we may proceed in its use."—The constitutional effects of the opiates, he deems likely to be relieved by belladonna, etc., under similar physiological reasons.

The Vomiting of Pregnancy.—In passing upon applications to the uterus in these cases, I would take the liberty of calling attention to the application of the tincture of benzoin and chloric ether, which I have been using with as good an amount of success as any agent I have employed, and it has the advantage of being very simple. I would particularly recommend it where there is much neuralgic pain and excessive leucorrhœal secretion. I have nothing so beneficial in these last named accompaniments as this preparation. By adding a few grains of acetate of morphia to this, it will also be found a very efficient remedy in painful menstruation, and will seldom fail, in the practioners hands, of giving ease and comfort to the female during this her much dreaded period, if applied just before or at the commencement of menstruation. It should be painted upon the os and cervix, once in three or

four days; and may be continued throughout the whole period of pregnancy without any unpleasant effects. My formula for this preparation:—℞ Tinct. benzonii c., ʒ ii.; chloric ether ʒ i.; acet. morphia, grs, ii. M. These applications should not only be made to the mouth of the womb, but should extend to the neck, but if we wish to gain a favorable result from them. If the silver be used, it cannot be applied too lightly; a very slight pencilling is all that is required. If applied so as to produce sloughing and discharges, it will fail of accomplishing our desires. Are not the good effects of these applications to be accounted for, from the fact that they form a protecting coat over the congested and abraded uterine mouth and neck, that may take place in the impregnated uterus, thereby allaying the irritation of the external uterine nerves and vessels, by equal pressure and protection from all external influences of vagina and other sources? I should be happy to hear the result of the use of these preparations in the practice of other medical gentlemen.

In addition to the above, I have used injections of Ferri alumenis, ʒ i.; inf. opii, ℥ ii.; aquæ dist. ℥ viii. M.—with some benefit. These can be used where it would not be expedient to employ the speculum. I sometimes substitute iodide of zinc for the alum. This is more applicable to these cases where there is slight spasmodic action in this organ, or in the neck of the bladder. I use five grains of zinc to the ounce.—*Dr. J. H. Warren, in Boston Med. and Sur. Jour.*

It appears quite possible that all the good effect assumed by Dr. Warren to result from the local application he suggests would be equally gained by anodyne injections *per rectum*.—It is scarcely probable that there is in these cases such a local condition of the *os* or *cervix uteri*, as to require use of the speculum every three or four days, or even more rarely. The speculum is abused quite enough already.

Remittent Fever in St. Louis.—The Medical Society of St. Louis, (reported in the St. Louis *Med. and Sur. Jour.* for November.) state that the several forms of malarial fever have been unusually abundant in that city the past season. At the O'Fallon Dispensary, 138 cases were prescribed for in a single afternoon. The type seemed protean. Quina and calomel were found as useful as ever, and largely relied upon.—Dr. Boisliniere suggested dry cupping over the epigastrium,

as very useful in allaying initation and vomiting. Dr. Pallen recommended mixing the quina with champagne, to quiet the stomach and prevent vomiting. He has found this practice very useful in many cases.

Puerperal Convulsions.—Dr. M. M. Pallen, in the same journal, suggests "that the heart during pregnancy enlarged as well as the uterus, and by its increased size propelled more blood with greater force towards the brain than at any other time, and thus created a greater tendency to congestion of the brain and consequent convulsions."

It is sincerely to be hoped subsequent investigations may not corroborate this opinion, for if they do so, there will be great temptation to employ bloodletting and other depletives, beyond even their present unwarrantable application in this form of disease. Cases may recover after their employment, and we think such recoveries ought, from their extraordinary character, to be duly heralded. But, meantime, physiology, and enlightened pathology point to the nervous system for the seat of the disease, and to the vascular system only for symptoms and results. Remedies for puerperal convulsions must be sought among the means capable of controlling irregular *reflex* actions. Stimulants and other agencies which powerfully impress the nervous centres, are quite as likely to prove useful, theoretically and practically, as depletives, or perhaps even sedatives.

Bibron's Antidotes for Snake Bites.—This compound still continues to attrack attention, and several cases of its complete success have been reported. The formula has been previously published in this Journal. The idea was unquestionably suggested to the putative inventor, by Prof. Brainard's well known experiments before the Committee of the Academy of Medicine, at Paris, several years since.

Pseudo Membranous Laryngites.—Dr. Estep, in the Belmont *Med. Journal*, remarks of this affection:

"My anchor of hope for almost unfailing success, is in

opium and calomel; the former in the form of Dover's powder in from 3 to 6 gr. doses, owing to the age of the child, combining it with from 1½ to 3 grs. of calomel, repeated every two hours, until the disease is declining, then the dose is diminished in size and frequency, but continued until a cure is completed; the condition of the bowels of course to be attended to."

Dr. E. attributes most credit to the opium. He subjoins counter irritation to the throat, warm baths, etc., as beneficial. "With this treatment," he observes, "croup will be disarmed of its dangers, and not one in fifty will die if the treatment is adopted before the third stage, or stage of collapse."

Treatment of Scarlatina by Iodine.—W. Reeves, M. R. C. S., in the London *Lancet*, recommends in all cases of scarlatina as soon as diagnosticated: ℞ Potassii Iodid. ʒ i.; Iodine, gr. ii; Potassæ Chlorat. ʒ i.; Potassæ Nitrat. ʒ iss.; Aquæ, ʒ viii. M. From a teaspoonful to a tablespoonful every four hours, according to the age of the patient. He adds to this, local application of the iodine to the throat internally by means of a feather, and externally in the form of ointment over the glands. He claims that "there are no other remedies in this disease at all to compare with iodine, thus employed.

Ingrowing Nail.—The Nashville *Journal* recommends in this annoying difficulty, scraping off the middle of the nail with a bit of glass until it is as thin as possible. "It is of no use to pare the edges of the nail, for this merely increases the torture; but as soon as the middle has been thinned, it yields to the upward pressure of the skin on its side edges, readily bends and offers no more resistance. Then the proud flesh drops down and the sore heals."

We can endorse this very simple and painless process, from frequent experience in its use for a dozen years past.

Hydrocele.—Mr. Pollock, in the London *Lancet*, suggests the use of a silver wire in place of the ordinary seton, or oth-

er remedial measures. He first evacuates the fluids and then allows the wire to remain until sufficient irritation is produced to cause adhesion or obliteration of the morbid tendency to effusion.

We venture to suggest from experience with the single linen thread we have often employed, that it is better to allow the fluid to drain off gradually by the thread, or by the side of the wire. Much of it finds its way into the investing areola tissue, and by the pressure produced adds materially to the chances of salutary adhesion. We have thus succeeded in effecting cures of this troublesome difficulty in several cases which had previously resisted injections of various kinds.

Milk Sickness.—Dr Nagle in the Nashville *Journal*, (Oct.) asserts that he has discovered the cause of this disease to be the ingestion by cattle of an ergotized cereal grass, found upon swamps or prairies. By exhibition of this fungus growth to animals, he has been able to produce the disease at will.—Salt culture destroys this tendency to fungus growth in the grasses. The main object of treatment is tonic and stimulant, and particularly to keep the bowels open. For these objects he relies upon calomel, or blue pill, and quina in large doses. Excessive constipation is met by clysters of cold water with a little salt, and renewed from time to time until feculent dejections occur. To this is sometimes conjoined judicious doses of elaterin. Dr. Nagle regards corn meal as an absolute specific in the treatment of the usually tedious convalescence, as much so as hydrated peroxide of iron for arsenic. "Not only in man is it a specific, but in cattle the cure is certain. Feed either party with it in plenty, give them all they can possibly eat, give it as mush and milk, as corn bread, as raw corn meal or any other manner you can, but give corn to cure milk sickness."

Typhoid Fever.—Dr. Bowling, in the same journal, in a rambling but genial style of comment upon the treatment of typhoid fever, taking a letter from Dr. Cogley as his text, calls upon the profession to return to the famous Nathan Smith, or "buttermilk treament," simply conjoining turpentine as a

specific remedy. Not as Prof. Wood suggests in a particular stage of the disease, but in every stage, and persistently.—The Doctor enthusiastically remarks: "It is hardly saying too much that NATHAN SMITH AND TURPENTINE WILL CURE TYPHOID FEVER," He ignores all other treatment. Buttermilk *ad libitum*, and Sp. Terebinthi, five drops every three hours! Only this and nothing more. Surely here is a climax of simplicity—a consummation devoutly to be wished—if true. But in another page of the same number, we find a correspondent lauding the peculiar treatment adopted by Doctor Thompson, which he assumes is destined to supplant every other, as soon as it is generally known. *Ecce signum*—dry cups and powerful rubefacients to the spine, potent nerve stimulants internally, and then quina in ten grain doses. So it appears that Dr. Bowling has not yet converted his own state to his views. Perhaps on the whole, he is nearer right, but *in media tutissimus ibis.*

STRYCHNIA IN CHRONIC INTERMITTENTS.—In the New Orleans *Medical News and Hospital Gazette*, Dr. Harrison, of Arkansas, has an article upon the use of strychnia in chronic intermittents.

The following is his formula:

"℞.—Strychnia, gr. iss.
Sulph. Quinine, gr. xv.
Capsicum, gr. vj.
Brandy, ℥ iv. M.

"Of this mixture, I direct one teaspoonful (for an adult) every hour, for six or seven hours preceding the expected paroxysm; at the end of this time I require the patient to take a cup of warm sage tea, and go to bed, (if he is not already there,) and remain until the paroxysmal hours pass. This course is to be repeated on the next 'chill day,' after which a teaspoonful of the medicine is to be taken two or three times per day, until the four ounces are exhausted."

With Dr. H. F. Campbell's views of the nature of this disease, and its relation to the nervous system, the philosophy of this treatment at once becomes apparent. This, however, is not altogether a new treatment. Dr. Brainard, of Chicago, recommended strichnine, in an eighth-of-a-grain dose, three times a day, in similar cases, more than twelve years ago.—(*See Indiana Med. Jour.*, *July*, 1847.)

We are confident that the remedial powers of strichnia are not yet fully brought out. So far as we know, we were the first to use and recommend it, in *sciatica* and chronic rheumatism; and we have seen cases of dyspepsia and chronic costiveness yield to it like a charm.—*N. Y. Med. Monthly.*

Direct injection of Nitrate of Silver, etc., to the stomach, in severe Dyspepsia and Chronic Inflammation.—Dr. Alexander Fleming, senior physician to the Queen's Hospital, Birmingham, after alluding to the ordinary mode of exhibiting remedies, proceeds:

"But this method of exhibiting the medicine is not equal to the cure of some of the severer forms of dyspepsia and chronic gastritis; and in these, I have, for the last four years, endeavored to act more generally and efficiently on the mucous surface by injecting the solution into the stomach. I employ a strong brass syringe and flexible tube—one-eighth of an inch in bore—the gastric end of which has a number of holes so directed that the fluid is thrown in a circular shower outwards and upwards on the walls of the stomach. The injection is made by dissolving from one to four grains of the nitrate in three ounces of distilled water. The operation is for the most part managed easily. Sometimes it causes nausea and retching—oftener not. It excites at first an enduring and grateful sense of coolness in the stomach; and subsequently there are felt pricking and sharp painful sensations, but of a different nature from the pains of the disease. Sometimes one injection is enough; but I have more frequently had to repeat it two, three or more times.

During the employment of the injections, the patient takes three times a-day and before food a little morphia or chloric ether, or Indian hemp, in plain or cinnamon water. He is confined to small and frequent meals of milk; and as he gets better this is thickened with arrow-root or tapioca, and he is gradually introduced to a nourishing and easily digestible diet. Counter-irritation to the epigastrium, of bismuth, oxide of silver, gentle tonics, &c., are employed when indicated.

Of the thorough efficiency of this mode of acting on the mucous surface of the stomach, and of its power in promoting the cure, my experience, so far as it goes, is very decided.—Although it is now four years since I tried injection, I have not used it in more than ten cases. I have always, in the first instance, employed the simpler method already described, and resorted to an injection only as a last resource: but its

greater efficiency would, I feel certain, justify its employment in many of the less severe cases, and give more thorough and speedy cures. It is not my purpose at present, to consider the intimate nature of the mode of cure, or the manner in which the nitrate of silver substitutes healthy for diseased action in the inflamed gastric membrane. I must reserve that interesting question, and the detailed narrative of cases for another opportunity.

Adulterations of Food and Medicine.—The committee on this subject, of the American Pharmaceutical Association, in their last report, specially refer to the following as most frequent.

Colored Confectionery—Adulterated with emerald or Scheele's green, arsenite of copper.

Beer—with cocculus indicus and nux vomica.

Pickles and Bottled Fruit—with verdigris and sulphate of copper.

Custard Powders—with chromate of lead.

Tea and Snuff—with the same.

Cayenne and Curry Powder—with red oxide of lead.

Sugar Confectionery—with gamboge, orpiment, or sulpuret of arsenic, and chloride of copper.

Flour and Bread—with hydrated sulphate of lime, plaster of Paris and alum.

Vinegar—with sulphuric acid.

Sugar—with sand and plaster of Paris.

Milk—with chalk, sheep's brains, ground turmeric.

Arrow root—with ground rice.

Chocolate—with rice flour, potato starch, gum tragacanth, cinnabar, bals. Peru, red ox. mercury, red lead, carb. of lime, and the red ochres to bring up the color.

Mustard—with ground tumeric, to give a brilliant color.

Butter—with potato starch, mutton tallow, carbonate of lead and sugar of lead.

One of the members of your Committee, who is acquainted with a gentleman formerly in the drug grinding business in New York, has been kindly furnished by him with some formulas by which "pure and genuine drugs" were prepared when he was employed at the mill referred to:

Powdered Cape Aloes—Cape aloes dried, 100 lbs.; ship biscuit, 100 lbs.; curcuma q. s. to color.

Common Ginger—African ginger, 200 lbs.; capsicum hulls, 25 lbs.; biscuit, 100 lbs.; curcuma q. s. to color.

Ipecac. powdered—Ipecac., 100lbs.; ship biscuit, 25 to 40 pounds.

Opium powdered—Turkey opium, 50 lbs.; Egyptian opium, 25 lbs.; biscuit, 40 lbs.

Gamboge powdered—Gamboge, 100 lbs.; tartrate of lime, 25 lbs.

Socotrine Aloes are pure bonaire, without adulteration.

Cream of Tartar is adulterated with from 10 to 65 per cent. of terra alba, or tartrate of lime, with about 3 per cent. tartaric acid.

Tartaric Acid powdered—Tartaric acid, 1000 lbs.; alum, from 10 to 35 per cent.

Scammony Aleppo, powdered—Virgin Scammony, 30 lbs.; cocoa beans, 80 lbs.; biscuit, 30 lbs.; lampblack, q. s. (sufficient quantity) to color.

Bird Pepper, powdered—Chilies, 1000 lbs.; rice, 800 to 1200 lbs.; curcuma and Venetian red to color.

Powdered Fenugreek—Fenugreek seeds, 1000 lbs.; biscuit 1000 lbs.; curcuma q. s. to color.

East India Rhubarb, powdered—East India rhubarb, 100 lbs.; English do., 60 lbs.

English Rhubarb, powdered—English rhubarb, 100 lbs.; biscuit, 30 lbs.; curcuma to color.

Turkey Rhubarb, powdered—East India rhubarb, Turkey rhubarb, equal parts.

The tartrate of lime referred to is more properly sulphate of lime with a small portion of tartrate. The ship biscuit is the hard and often worm-eaten cakes brought in by ships after a long voyage.—*Am. Jour. Pharmacy.*

Therapeutic Properties of Sarsaparilla.—Dr. M. Adam, in some interesting *Medical Notes from the Continent*, refers to some experiments by Prof. Bocker upon sarsaparilla, as yet unpublished. Dr. Bocker told Dr. Adam, "that after carefully performing ninety-eight experiments with this drug on healthy people, he found that contrary to all our usually received opinions on the subject, it possesses neither diuretic nor diaphoretic properties. Another series of twenty-six experiments, on the persons of uncured syphilitic patients, gave exactly the same results." Bocker also satisfied himself that sarza does not increase the efficacy of the agents, such as iod. potass., &c., which are usually given along with it; and that the good results obtained by the administration of this salt, dissolved in decoction of sarza, are in no degree attributable to any virtue in the solvent fluid. I told Dr. Bocker that I

remembered hearing Prof. Syme, many years ago, express his opinion on the utter uselessness of so expensive a drug as sarza, remarking, in his own quaint, forcible style, that he believed an 'infusion of hay' would be just as good, and a vast deal cheaper. He seemed amused, and said that he entirely agreed with Syme; that infusion of sarza had no greater effect on the system than so much common tea; and that we must regard it merely as a pleasant, but very expensive, vehicle for the administration of other medicines.—*Edinburgh Med. Journal.*

Submucous Injection as a cure in the Toothache of Pregnancy.—Horatio R. Storer, M. D., in the Boston *Med. Journal*, strongly recommends this process, rather than the dangerous and uncertain one of extraction. He instances the following:

"Case.—A. Z., aged 22, applied to me for treatment early in May last. Patient had suffered for several weeks from severe neuralgic pain throughout the left half of the upper jaw, at times lancinating in its character, at others more dull, but never wholly absent. The general health was decidedly affected, as evidenced by the state of the circulatory, digestive, and nervous systems. The teeth, on inspection, were all sound; there was no heat or swelling of the gums, no tenderness or increase of pain on pressing them.

"Anodynes, both local and general, refrigerants, emollient poultices and counter-irritants, were successively resorted to, without benefit. After much solicitation a tooth was extracted; the patient remained unrelieved. On the following day, no change for the better having occurred, ten drops of the Edinburgh solution of the bi-meconate of morphia were injected beneath the mucous membrane of the gum; the pain ceased instantaneously, and from that moment to the present, a period of nearly five months, there has been no return of the malady."

(*To be continued.*)

Genius.—M. Moreau asserts that all men of genius are men in different states of madness. Genius is a neurosis.

CHICAGO ACADEMY OF MEDICAL SCIENCES.

DELASKIE MILLER, M. D., PRESIDENT.

The regular monthly meeting was held on Friday, Jan. 6th, when the following officers were elected to serve during the ensuing year:

President—Dr. R. C. Hammill. *Vice President*—Dr. I. A. Graham. *Recording Secretary*—Dr. Walter Hay. *Corresponding Secretary*—Dr. John H. Rauch. *Treasurer*—Dr. Thomas Bevan. *Trustee*—Dr. Chas. G. Smith.

The following Standing Committees were also chosen;

On Admissions—Drs. Heydock, McAllister, and Holmes.

" *Medical Ethics*—Drs. Bloodgood, Fisher, and O. Smith.

" " *Education*—Drs. Davis, Ingals, and Gore.

A vote of thanks was given to the retiring officers.

Dr. Bloodgood (from Board of Trustees) reported that they had found suitable rooms for the permanent location of the Academy, and were thereupon authorized to secure such rooms as in there discretion might seem best, at a rent not to exceed $150 per annum.

Dr. Rauch moved that the Academy subscribe for the principal Medical Periodicals.

Dr. Byford moved an amendment to the effect that publishers be requested to donate, which was passed.

Dr. Rauch suggested the necessity of Incorporation in order to effect this object, whereupon the Secretary was instructed to take the necessary steps to effect the Incorporation of the Academy under the general Law of Incorporation.

Dr. Blake proposed the following resolution: *Resolved*, That Tracheomety is usually deferred too long in cases of membranous Croup, and that if resorted to earlier it would greatly lessen the mortality in that disease; which was accepted, and Drs. Bloodgood and Blake were appointed to discuss the subject at the next regular meeting.

Dr. McAllister called attention to a verdict of a Coroner's Jury, which had come under his notice, "That the subject died from disease of the stomach," no post-mortem examination having been made to determine the fact.

Dr. Gore (County Physician) had seen the case, and stated that no post-mortem examination was permitted by the parents of the boy; that the "verdict" in question was made up from the opinions of two physicians, who were said to be acquainted with the facts of the case, and from marks of violence upon the body, viz: an abrasion of the skin, and was that "The boy came to his death from internal injuries, (probably hæmorrhage) the results of a fall upon the edge of a portion of a barrel, while engaged in feeding cows." He also remarked upon the unreliable character of reports of such verdicts as published in newspapers, and assigned the reasons.

Dr. McAllister thought that juries were not justified in giving such verdicts without having post-mortem examinations.

Dr. Davis denied the right of parents, or any one else, to interfere with the rights of juries, maintaining that the subject of such an investigation belonged to the jury alone.

The subject was discussed at large by Drs. Davis, Blake, Gore, Ingals, and McAllister.

Dr. C. G. Smith suggested the propriety of exerting the influence of the Academy as a body in procuring the election of a physician to the office of Coroner.

Drs. Davis and Ingals were appointed a committee to investigate the subject of abuse in the practices of Coroner's Juries.

Dr. Bloodgood submitted the following report of the section to which the subject had been referred, viz:

The signs usually indicating death by drowning are the following: When found soon after death the surface of the body is pale or slightly livid, with muscular rigidity more or less complete, according to the time that has passed since the immersion took place; the eyes are partly open, and the pupils dilated the tongue is pressed against the teeth, or protruded between them, and sometimes wounded by them. The ends of the fingers are often abraded by the efforts made in the death struggle; the hands inclose grass or other substances that come within their reach, and the hollows of the nails are filled with sand or mud that forms the bed of the water. The abdomen and chest are prominent. The lungs and right side

of the heart are filled with black fluid blood, as are also the liver and spleen, and a small quantity of bloody urine is sometimes found in the bladder. The stomach contains water of the same nature as that in which the body is found, and the air passages are more or less filled with froth formed by the water drawn in by the inspiratory efforts, and mingled with the air already present. The air found in the lungs is almost wholly destitute of oxygen. According to Prof. Beatty there is turgesence of the blood vessels in the head, more or less complete as the death has been more or less speedy; but Dr. Goodwin, as quoted by Roget, says that the external surface of the brain is of a darker color than usual, but the vessels are not tinged with blood, nor are there any marks of extravasation about them. Dr. Currie also says, they do not exhibit any particular marks of distension, and Dr. Guy, that they contain a small quantity of blood, and the medullary substance presents, when sliced, a number of bloody points. With these latter authorities we are inclined to coincide.

When all these signs exist, with the absence of wounds or other injuries which might account for the death, its cause can not be a matter of doubt, but the signs are sometimes wanting, and sometimes their presence admits of another explanation. When syncope occurs at the moment of immersion, we may have no evidence of death by drowning, except the finding of the body in water, or if in falling from a height the head strikes a rock, producing concussion of the brain, or in a state of deep intoxication the subject is accidentally or wilfully thrown into the water. But though the want of any or all the ordinary signs, do not absolutely disprove the theory that drowning was the cause of death, the coincident presence of two of them, even when conjoined with a mortal wound of the head, would, we think, furnish very strong proof that death was caused by drowning, and in the absence of conflicting circumstances, other than the wound, justify a verdict to that effect. These signs are the presence of water in the stomach, identical in composition with that in which the body is found, and the presence of a quantity of froth in the air passages. The value of the first and most constant sign, is much impaired by the

difficulty of determining whether the water was introduced before or at the time of death, and also by that of proving its chemical identity with that in which the body is found. The other, however, is very significant, and can be produced only by the simultaneous presence of air and water in the lungs while they are still in motion. The presence of water unmixed with air, would prove that it had flowed in after respiration had ceased. The danger of confounding the expectoration of pneumonia or bronchitis with the froth produced by drowning, is very small, on account of the different characters of the fluids, and we think could almost always be avoided by a careful examination of them. The presence of what any one would regard as a mortal wound, would only serve to throw light upon a case that would otherwise be doubtful, not to disprove positive facts. The subject of the celebrated Crow-bar case, would have died by drowning had he been immersed long enough at any time subsequent to the accident from which he suffered, though he had a wound which no surgeon would have hesitated to pronounce speedily fatal. We therefore think that the presence of froth in the air passages, is a certain sign of death by drowning, subject only to the condition that water was not injected into them before death.

FEES FOR PROFESSIONAL SERVICES.

FROM THE NORTH AMER. MEDICO-CHIRURGICAL REVIEW.

The remunera.ion for medical, surgical and obstetrical services have, of necessity, varied very much in different ages and countries, according to the estimate of the services rendered, or the relative value of money. In many countries, towns and cities, there are regular fee-bills regulating the charges for ordinary practice; a custom which we have always regarded as absurd and unjust, since it places, in this particular, all practitioners, whatever may be their respective merits, upon the same level, whereas every man should be permitted to charge according to his skill and the nature of his services, not forgetting the circumstances of his patients.

In looking, not long ago, over some of our papers, our eye chanced to light upon a bill for professional services rendered by the late Dr. James Craik to Captain G. S., of Washington City, the father of a large and highly respectable family, to one of the members of which we are indebted for this interesting document. Dr. Craik was the physician of Washington and attended him in his last illness, in conjunction with Dr. Dick. The bill is dated 1795, beginning in April of that year, and ending in March, 1799, the entire amount being £66 16s, 6d. It covers more than ten pages of foolscap, and particularizes every item with the same care as a merchant's or grocer's account. The following extract will serve as a specimen of Dr. Craik's charges:—

	£	s.	d.
For extracting Peter's tooth,	0	3	0
Visit to your lady, and anodyne draught,	0	3	0
A purge,	0	1	3
An emetic,	0	1	6
For bleeding Capt. S.,	0	3	0
" delivering your lady,	5	0	0
Visit to your son George, and vermifuge pill,	0	1	0
23 syphilitic pills for Sam.	0	16	0
Visit to your child Harriet, and 2 alterative powders,	0	5	0
Visit to your son George, and vermifuge pill,	0	3	0
8 ounces of injection for boy Sam,	0	5	0
One syringe,	0	3	0
Dressing negro boy's hands,	0	2	6
Visit to your lady, and anti-rheumatic tincture,	0	3	0
Visit to your lady, and opening abcess in breast,	0	5	0
Blistering plaster,	0	5	0
Bleeding,	0	3	0
12 febrifuge powders,	0	6	0
6 ounces best olive oil,	0	2	6
Bleeding negro woman,	0	3	0
" Master George,	0	3	0
Dose of salts,	0	1	6
Inoculating your child,	1	0	0

Emetics, purgatives, absorbent powders, anodyne draughts, and preparations of bark—powder and infusion—are prominent items of the account.

The custom of presenting items in medical bills, has, we presume, become obsolete. It is certainly inconsistent with dignity of a professional man of the present day to descend to such minutiæ. A round statement in dollars should be quite sufficient. Only once, in our whole life, have we been re-

quested so to demean ourselves. We replied, that it was contrary to the habits of professional gentlemen to specify their charges, with the minute exactness of an auctioneer's catalogue, at the same time that we informed our *patron* our ledger was at his service; nay, furthermore, that if in future he wanted our attendance on such conditions, he could not have it. The *creature*, now one of the merchant princes of the city where we then resided, had all his life been dealing in sugar, molasses, and whisky, and could therefore not help following the force of his habits.

Professional services are generally much more highly appreciated in cities and large towns than in the country. In the United States, practitioners are much better rewarded in the South and Southwest than in the North and East; in the slave States universally much more liberally than in the free. The reasons for these practices are obvious. In towns and cities, physicians could not live if their charges were not higher than they are in the country; and in the Southern regions of the United States, money is much more plenty than among the same number of inhabitants in the North and East.

The highest fees for medical services in this country, are paid at New Orleans, where the ordinary charge for a visit is from two to five dollars, while consultation services yield at the rate of from ten to twenty. At Charleston the first consultation fee, established by long habit, is $14,00, the subsequents ones being each $2,00. In this city the first consultation visit is usually $5,00, and those made afterwards, $2,00 each. The fees of surgeons are generally, everywhere, higher than those of physicians.

Since our attention has been directed to this subject, we have examined a number of works in our library with a view of ascertaining the charges, ordinary and extraordinary, of practioners, dead and living, in different countries and in different ages.

In ancient times some remarkable fees were obtained for professional services. It is related of Charmis, who kept a bathing establishment at Rome, in the reign of the Emperor Claudius, that his regular charge for advice to those who were anxious to avail themselves of his treatment, was £800. He was the first water-cure doctor, if we may credit the researches of Dr. Doran, that ever practiced, and he made an immense fortune, such as no brother of the craft of the present day can at all approach.

The most liberal fee of modern times was that received by Dr. Dinsdale, a physician of Hertford, England, for inoculat-

ing the Empress Catherine, at whose request he visited Russia in 1768. The operation was perfectly successful, and such was the gratification of the Empress, that she made Dinsdale a baron of the empire, besides presenting him £12,000, and a pension of £500 a year.

The largest fee ever received by Sir Astley Cooper was 1000 guineas. His patient was a man of the name of Hyatt, a retired West India merchant, who was affected with stone in the bladder. The manner in which the fee was presented, is worthy of notice. When Hyatt had entirely recovered from the effects of the operation, he requested his surgeon, with his two medical attendants, Dr. Lettsom and Dr. Nelson, to visit him on a particular day. Cooper arrived after the physicians had left the room; he met them down stairs, discussing the liberality of their patient, who had presented each with £300. Sir Astley was cordially received by the old West Indian, and after having chatted a little while, he rose to take his leave, and had got as far as the door, when Hyatt threw his night-cap at him, saying at the same time, "There, young man, put that into your pocket." Upon examining it, he found a check in it for 1000 guineas.

Hyatt, it would seem, was equally as liberal to his apothecary, or regular family attendant. One day being sent for in haste to visit his patient, he fell down and hurt his knee. so as to cause him on entering, to be lame. Hyatt observing his condition, immediately exclaimed, "Dobson, old fellow, what is the matter?" On learning what the trouble was, he pulled out a £100 bank note, and applied to the joint, adding that it was the best plaster in the world for a bruised knee.

A wealthy London merchant, Mr. William Cole, paid Sir Astley Cooper annually, for years, £600, for attendance upon his family.

During the hey-day of his professional life, Sir Astley Cooper frequently made 100,000 dollars a year by his practice. Much of this vast sum was received for chamber practice.—He had to answer many letters of advice, for which he never received less than a one pound note, while many yielded him five times that amount.

Dr. Lettsom, who was a West Indian by birth, made, in a visit which he paid to Tortala, his native town, soon after having completed his studies in London, nearly £2000 in five months. After he had succeeded in establishing himself in the British metropolis, his income annually, ranged from twenty to twenty-five thousand dollars. In 1800, he received in fees, £12,000, or sixty thousand dollars.

Fothergill, the Quaker doctor, did an immense practice.—For the last twenty-five years of his life, his fees annually averaged nearly seven thousand pounds, or about thirty-five thousand dollars. He commenced his practice in 1740.

Mead's income was, on an average, from five to seven thousand pounds, for many years. He once received three hundred guineas for visiting a patient at Ingestree, in Staffordshire. The patient had been very ill, but recovered before the arrival of his great physician.

Dupuytren's income was enormous; he began life as a poor boy, and died worth more than a million of dollars.

Graefe, the celebrated surgeon of Berlin, left an immense fortune, the result of his professional labors.

In this country, physicians are not noted for their high charges or great income. One of the largest fees ever received by any one, was that of Dr. Ephraim McDowell, for the operation of ovariotomy, performed upon a lady in Tennessee, whose husband gave him fifteen hundred dollars. We have heard of a fee of five thousand dollars being paid to a New York surgeon for an operation of club-foot, but we are unable to vouch for the authenticity of the story. Physick left a large fortune, but rather in consequence of the rise in his estate than of his large professional emoluments. His charges were generally small. A gentleman once handed him a hundred dollar note, for attendance on his wife; but the doctor thinking that it was out of all proportion to the value of his services, returned all but ten dollars.

The salaries of court physicians and surgeons, have also varied according to the times in which they have flourished, and the respective ranks which they occupied. In the reign of Henry III, of France, the pay of the royal household staff was as follows:

First Surgeon.

Ambrose Pare,.....666 livres and 12 sols.

Surgeons in ordinary.

Pierre Pegray,.....333 livres and 6 sols.
Antoine Portail,.....333 " " 6 "

Assistant Surgeons, serving each three months in the year.

January, February, and March.

Jacques Guillemean,.....100 livres.
Isaac Bruns,.....100 livres.

April, May, and June.

Jehau Lambert,.....100 livres.
Jacques D'Amboise,.....100 livres.

July, August, and September.

Ismael Lambert,.....100 livres.
Hierome de la Noue,.....100 livres.

October, November, and December.

Charles Buchalier,.....100 livres.
Michael Vandelon,.....100 livres.

Louis XIV seems to have had a high appreciation of the services of his professional attendants. Being affected with anal fistule, an operation became necessary, on recovering from which he exhibited his gratitude by bestowing upon them not less than £14,700 in the following ratio:

To M. Felix,.....	50,000	crowns, or	£6000.
Dr. Duquin,.....	100,000	livres, "	4000.
Dr. Fagon,.....	24,000	" "	1000.
M. Bessiere,.....	40,000	" "	1500.
Four apothecaries, each,.....	3,000	" "	2000.
M. Raye, apprentice to M. Felix	400	pistoles "	200.

Considering the enormous price paid for the operation, it is surprising that the filthy disease which it was designed to relieve, should ever have become the fashionable court complaint. A surgeon of the present day may regard himself as extremely fortunate if he can occasionally get a patient who is able to pay him two hundred dollars, for the division of the sphincter muscles, including the after-treatment.

Scanzoni, professor of midwifery in the University of Wurzburg, received twenty-five thousand dollars for attending a short time ago, the Empress of Russia in her confinement. The prestige with which the favorable reception of this physician at the Russian court invested him, has rendered him the most celebrated accoucheur of continental Europe, and laid the foundation of one of the most aristocratic practices in the world, crowds of the German and foreign nobility flocking to him from all parts.

Medical men sometimes receive, in addition to their regular fees, large presents, either in money, plate, clothing, or wine. Thus, Ambrose Pare, the father of French surgery, at the siege of Metz, in 1552, had a tun of wine sent to him for curing one of the officers of a broken limb, by De la Roch, with a promise that "when it was dronken he would send mee another." The Sultan recently, after his recovery from an attack of ague, in which he was obliged to take an unusual quantity of quinine, the effects of which occasioned symptoms which somewhat alarmed the court, presented his physician,

Dr. Caratheodory, precious stones, works of art, and various other articles, valued at between twelve and sixteen thousand pounds, besides a handsome estate.

Physicians, on retiring from practice, are sometimes presented with a service of plate, by their grateful patrons; and similar compliments are occasionally paid by towns, and cities, in consideration of the services rendered by practitioners during the prevalence of devastating epidemics.

Sometimes, again, the present is in the form of a wife.—Thus, Podrilius, whose praises have been sung by Homer, was rewarded by the King of Caria with the hand of his daughter, whose life he was supposed to have saved by bleeding her in both arms, after a fall from the the top of a house. Such a gift might not always be agreeable or convenient to the recipient, but it could hardly be otherwise, when it comes in the form of a rich princess, as in the case of Podrilius.

Governments do not always reward their subjects in proportion to the value of their services. Jenner, for his immortal labors in vaccination, by which millions of lives have been preserved, received from the British Parliament the paltry sum of twenty thousand pounds. Brossar d, a French surgeon, in the seventeenth century, was richly rewarded by the French government for the disclosure that agaric would arrest hæmorrahge after surgical operations. The remedy was tried, and of course, found useless, though not till a number of lives had been lost by it. Mrs. Stephens, as late as the last century, obtained a large sum from the British Parliament for making known the supposed virtues of Castile soap and egg shells in urinary calculi.

The charges for attendance at coroner's inquests are not commensurate with the services exacted upon these occasions. From ten to twenty dollars is the usual fee for making a dissection for the benefit of the public, and even that sum is often grudgingly allowed. In cases of poisoning the remuneration is, of course, more liberal, though seldom adequate. The largest compensation for services of this description, ever paid in this, or, perhaps, in any other country, was that recently awarded by the city of New York to Dr. Doremus, Professor of Chemistry in the New York Medical College. The sum allowed to him was three thousand dollars, besides three hundred dollars for the outlay of new apparatus. The case was that of Stephens, tried for the murder of his wife by poison. Dr. Doremus was obliged to analyze two entire bodies.

Finally, a good fee is a powerful stimulant, causing the most delightful sensations, and goading a man on to the most

vigorous performance of his duties. It increases the pace of the sluggard, and improves the digestion of the dyspeptic.—There is not a man in the profession, that has not, at times, felt the force of the practice of the celebrated physician of Bath. Finding himself no better for his own prescriptions, he laughingly observed to a friend, "Come, I think I will give myself a fee, I am sure I shall do better then." Putting his hand into his pocket, he took out a guinea, and gravely passed into the other. He soon got well. Assuredly, reader, there is great potency in a good fee.

Physicians sometimes place no better estimate upon their services, than their patients. A young professional acquaintance recently told us, that not long ago, after having prescribed for a female, she handed him a one dollar counterfeit note, which he did not hesitate to take, although he knew at the time that it was worthless, believing that it was a fair equivalent for his services. We have not examined our brother's organ of conscientiousness, but suppose it to be very large.

VESICO-VIGINAL FISTULA,

A NEW OPERATION PROPOSED, BY WHICH THE TWISTED SUTURE MAY BE APPLIED.

BY PAUL F. EVE, M. D.

I submit to the profession an instrument by which the operation for *vesico-viginal fistula*, may, I think, be greatly simplified. The difficulties I have always encountered in attempting to relieve this most distressing affection, and the want of success even by the recent American improvements, have led to its suggestion; and without waiting to try it in a case, not knowing when an opportunity will be offered, the method is at once presented for the consideration of others. In common with my professional brethren, I hailed with pride and pleasure the important practical additions made on this subject by our distinguished countrymen, Drs. Sims and Bozeman, and remarked at the time to a friend, when the *button suture* was announced,—it is perfection. Subsequent experi-

ence, however, has taught me that something more is still required to heal vesico-vaginal fistula, with much degree of facility or success, and that almost any proposition (promising amelioration in its treatment) would be favorably received.—And for proof that I am not singular in this respect, in the publications of those who have operated, nearly all have testified that it is a very painful, tedious, complicated and uncertain operation.

The plan proposed is by a *screw-clamp* so to project the edges of the fistula that it may be closed by the *twisted suture.*

This instrument consists of two thumb-screws six inches in length and a line in thickness, with the threads cut three inches one-half of the way right, and the other half left-handed, on each of them, so that two clamps through which they pass may be made to approach each other by turning the screws. It is made of polished steel, except the edges of the clamps which have small projecting teeth to prevent their gliding over the mucous surface of the vagina when applied to it. I have these put one-fourth of an inch apart, with a projection one-eighth of an inch slightly curved towards the fistula. The clamps themselves may be bent towards the vaginal surface.

The patient is placed upon her knees and elbows, with Dr. Sim's lever-speculum introduced, the screw clamp is then applied, with one of the clamps three-fourths of an inch anterior, and the other the same distance posterior to the fistula. While thus held in position, by means of a curved catheter or forceps passed through the urethra into the bladder, the fistulous opening is oppressed between the clamps, or with a pair of forceps or hooks, the edges may be drawn between them, and the screws turned so as to close upon the fistula. The handle of the right hand screw, or one-half of its entire length, is made movable so as to be detached, to give room for manipulation. The lips of the fistula are now denuded with the knife or scissors, pins thrust through them, ligatures twisted around their points and heads, the instrument unscrewed and removed, and the operation will have been completed.

I prefer the figure of 8 suture, and it may be tightend after the screw clamp has been removed. The points of the pins should be cut off, and they themselves may be prevented ulcerating the vagina by the interposition of some soft material. The ligature may be thread or wire, and a single loop will answer every purpose. Probably silk would be best.

The advantages proposed by this new operation are:

It may be performed in fifteen or twenty minutes; an important consideration when we recollect the position of the patient on her knees and elbows.

The fistula is fully exposed.

Hæmorrhage is prevented by the pressure of the instrument.

We avoid wounding the bladder.

Broad surfaces can brought in apposition.

The line of union is seen throughout the treatment.

The after treatment may not be as rigorous as that now recommended. The bowels may be moved after the second or third day, and then kept in a laxative condition; the patient may begin early to use the catheter herself at short intervals, and her diet may be a little more generous. The horizontal position should, however, be observed most of the time.

The apparatus is readily removed, the instrument itself, and then the sutures simply by withdrawing the pins. Who, let me ask, has not experienced difficulty in detaching the suture, in some cases so great as even to interrupt the healing of the fistula?

It is comparatively free of danger.

The method is far less painful. In my six cases but ten attempts, every patient has complained most distresingly of the Sims' and Bozeman's operation.

Though not adapted to all cases, this operation no doubt can be applied to the majority of them.

I leave to others willingly, who may feel disposed to try the plan here described, to determine its value, or it may be to improve upon it.

Mr. Schott of this city, makes the screw-clamp for five dollars.

BRIGHT'S DISEASE OF THE KIDNEY,

THE FORMS AND STAGES, WITH ESPECIAL REFERENCE TO DIAGNOSIS AND PROGNOSIS.

BY DR. GEO. JOHNSON, PHYSICIAN TO KING'S COLLEGE HOSPITAL.

[From Ranking's Abstract.]

The author considers that the *oneness* of Bright's disease is inconsistent with the clinical history and the morbid anatomy of the kidney in its various conditions. A large Bright's kidney usually remains large to the end, and a contracted Bright's kidney has not passed through a previous stage of enlargement. The chief points of distinction between the large white Bright's kidney and the contracted kidney are the following:—

1. The urine secreted by the large kidney is less abundant, of higher density, more constantly and copiously albuminous, and contains small waxy casts with or without oil, but not the granular casts which are thrown off from the tubes of the contracting kidneys.

2. The minute anatomy of the two kidneys is different.—In the contracting kidney, the gland cells becomes disintegrated and washed away, leaving the tubes denuded. In the large white kidney, the cells for the most part remain attached to the basement membrane, and undergo changes varying from a slight glanular opacity to a complete oily degeneration, or they may at length become replaced by an albuminous or a fibrinous material which fills and obstructs the tubes.

3. Another important distinction between the two forms of disease consists in the relative frequency of dropsy as a symptom. There are few exceptions to the rule, that patients who die with a large Bright's kidney have had dropsy. In only two out of twenty-six fatal cases in the author's experience, had dropsy been wanting at some period of the patient's history; whereas, of thirty-three fatal cases of contracted kidney, there had been dropsy in only fourteen, and in the most of these cases the dropsy was very slight and partial.

The author remarked that if all the contracted Bright's kidneys have passed through a previous state of enlargement, it is difficult to understand how the majority of those patients who have reached this final stage of renal degeneration can escape the dropsy which, in a greater or less degree, troubled nearly all those who die in what is by some writers assumes to be an earlier stage of the same disease. The rule is, that a large Bright's kidney remains so to the end, and that a con-

tracted kidney has not previously been enlarged. But there are exceptions to this rule. There are cases of Bright's disease in which the kidneys, having become enlarged, subsequently undergo a process of contraction in a greater or less degree. These cases, however, are so exceptional in many of their most important features, that they afford a remarkable confirmation of the doctrine, that in ordinary cases the contracted Bright's kidney is not an advanced stage of a previously enlarged kidney, but the result of a distinct series of morbid changes. The cases in which contraction of the kidney has followed upon enlargement may be divided into three classes: First, there are cases in which the weight and size of the kidney are found to be increased after death; yet in the cortical portion of the gland there are unquestionable indications of atrophy and contraction. The author said he had met with six cases of this kind, and showed a drawing of the kidney from one case. The gland was large, pale, and waxy, but the cortical portion decidedly wasted. In the second class of cases, the contraction of a pale, waxy kidney had proceeded farther, so that the size and weight were reduced below the average of the healthy gland. The third class of cases are those in which a kidney, having become enlarged and *fatty*, has subsequently contracted; the fat granulations being still visible in the atrophied kidney. During a period of fourteen years the author has met with five examples of contracted fat kidney. In two of these cases the period of transition from a large fat kidney to a contracting kidney was clearly indicated by the microscopic characters of the urine. The large waxy and granular casts were observed to take the place of the small waxy and oily casts which had been present during the earlier periods of the disease. One of these cases was under observation for a period of ten years. The chief points of distinction between a kidney which has been wasted by the chronic desquamative disease and one which has contracted after waxy enlargement were referred to, and illustrated by drawings of two forms of disease.

Longevity.—The following may be seen on a gravestone in Derwin (Denbigshire) church-yard: "Husband died, aged 103; wife died, aged 98; their son died, aged 97; their daughter, aged 107; their grandson, aged 98; total, 499; average 99½.

THE USE OF CHLOROFORM AND ACONITE IN NEURALGIA.

In a letter to the *Med. Times and Gazette*, Dr. Gueneau de Mussy writes:—

"For more than three years I have prescribed it in neuralgia of different regions; but here I want chiefly to allude to the most common and severe of neuralgic pains—the facial neuralgia, in which I have derived from the above-named remedy sometimes a complete and permanent cure, and always an almost immediate and considerable relief. In such cases I apply it directly to the gums of the side affected, where numerous divisions of the fifth nerve are most superficial. When the neuralgia is idiopathic, *i. e.* unconnected apparently with any other disease, the formula is:—2 parts of sp. of wine, or eau-de-Colonge, 1 of chloroform, and 1 of tincture of aconite; the finger covered with a piece of lint or soft thick linen, is dipped in the mixture and rubbed gently against the gum for a few minutes. I do not use a sponge, because it would take up too much of the liquid, which by pressure might drop into the mouth.

"When the pain is connected with some organic disease, as a deranged tooth, chronic inflammation of the gums, or of the sockets, or, as I have observed, superficial necrosis of the bone, I have found the tincture of iodine a very beneficial substitute for spirit of wine in the formula above.

"The infra-orbitary branch being the most commonly affected, it is chiefly in neuralgia in this part the application has been successful; but by no means exclusively so; it answers very well in pain of the lower branch, and I have observed some very severe cases of supra-orbitary neuralgia, in which the same application has been attended with an equally satisfactory result.

"This shows, moreover, that the sedative agent may produce its effect, as the irritating one so frequently does, on a part distant from the spot on which it was applied in the same, and even in a different branch of a nerve."

INVERSION OF THE UTERUS SUCCESSFULLY REDUCED.

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The following case of the successful treatment of inversion of the uterus, was reported for the *North Amer. Medico Chirurgical Review*, by Dr. Wm. Irvin, of Breakneck, Butler county, Pennsylvania.

"On the 26th of November, 1858, I was called to see Mrs. W., forty-eight years of age, in labor with her eleventh child. She was a large healthy woman, with an exceedingly roomy pelvis and pendulous abdomen. I found the os soft and dilated to the size of a dollar, but the pains were not strong for about six hours, when two or three uterine contractions were sufficient to expel the child, at the same time inverting the uterus with the placenta adherent. The cord being very short the weight of the child dragged down the organ between the thighs nearly as far as the knees.

"I severed the cord, and made several unsuccessful attempts to reduce the uterus, with the placenta still adhering. The hæmorrhage became very alarming, and the woman was sinking, when I remembered Professor Meigs's injunction to remove the placenta and return the organ by pressure upon its fundus. I therefore detached it as quickly as possible, and had the satisfaction of finding that the bleeding was much diminished.

"Placing my right hand under the uterus, and supporting it in a line with the axis of the pelvis with my left, I pressed the tips of my fingers firmly against the fundus and pushed it upward. After a little while the tumor softened, and I found I had indented the fundus, the pressure being continued until my fingers were arrested by the contracted os, which yielded in about one minute. I then carried my hand upward in the pelvic axis, and when I had introduced my arm, half way to the elbow, the fundus suddenly shot away from my hand, and the organ resumed its natural position. In a few minutes a contraction came on, and the organ returned to its proper situation.

"I watched the patient four hours, enjoining strict recumbency and rest. The case afterwards proceeded as usual, and the woman made a speedy recovery."

GLYCERINE OINTMENT FOR ITCH.

[From the London Lancet.]

M. Bourguignon, so well known in Paris by his successful researches on "the acarus scabiei," has published in the *Gazette Medicale* the following formula. One general friction, not preceded by soap ablutions, is sufficient:—Yelks of two eggs; essence of lavender, lemon, and mint, of each seventy-five drops; essence of cloves and cinnamon, of each 120 drops; gum tragacanth, half a drachm; well-pounded sulphur, twenty-six drachms; glycerine, thirty-two drachms. Total weight, nearly eleven ounces. Mix the essences with the yelks of egg, add the gum tragacanth, make a good mucilage, and then add very gradually the glycerine and sulphur.

Many cures have been obtained by this preparation, which has the advantage of giving no pain.

The well-known Helmerich ointment being really useful, M. Bourguignon has modified it, and substituted glycerine for the axunge. In the altered form, the preparation is not any dearer, as efficacious, and less painful than the original ointment. It does not grease the clothes, and has an agreeable perfume.

Gum tragacanth, fifteen grains; carbonate of potash, thirteen drachms: well-pounded sulphur, twenty-six drachms; glycerine, fifty-two drachms; essence of lavender, lemon, mint, cloves, and cinnamon, each fifteen drops. Total weight nearly eleven ounces. Make a mucilage with the gum and one ounce of glycerine, add the carbonate, mix until it is dissolved, and then gradually add the sulphur and glycerine;—lastly, pour in the essences. With this compound, M. Bourguignon advises two general frictions of half an hour, within twelve hours of each other, and followed, twenty-four hours afterward, by a simple warm bath, as the glycerine is soluble in water. Two-thirds of the preparation should be used for the first friction, and the other third for the second.

ADMINISTRATION OF MEDICINE TO CHILDREN.

(From the Druggists Circular.)

M. Wahu having much to do with the diseases of children, wishes to impress upon practitioners the importance, in the case of important medicinal substances, of having them administered, whenever practicable, in their own presence. He also states some of the means he adopts to enable certain medicines to be more easily got down. Thus, the subnitrate of bismuth, in large doses, which is of such value in diarrhœa and the gastro-intestinal affections of children, often subsides to the bottom of the spoon when given in broth or milk; and it is much more readily taken also by children of about two years old when given in chocolate prepared in water, and thickened with tapioca or crumbs of bread. In this way seventy grains and more may be given night and morning. In the same way iron can be very readily given. Ratany and catechu, two precious drugs, the action of which, when in small doses, is soon manifested in children, can also very readily be given in this chocolate panada. Chocolate made with either milk or water, and flavored with canella or vanilla, is usually very readily taken by children, and its dark color facilitates the mixture of numerous colored medicinal substances, which would be observed by the little patients were they given in milk, broth, or any infusion. Ratany and catechu may also be well triturated and mixed with jelly, the flavor of which, while masking that of other substances, is very agreeable to children.

Sulphate of soda and sulphate of magnesia are substances very difficult to get even adults to take. The sulphate of soda may be often administered to children, by dissolving ten parts in 150 of unsalted beef-tea, and waiting until the child is sufficiently thirsty to swallow a cup of liquid almost without tasting it. For adults, the best is to dissolve the sulphate of soda or magnesia in exactly the quantity of hot water necessary for its complete solution. This is allowed to get cold, and a glass of pretty strong lemonade is prepared.—Holding a glass in each hand, that containg the salt is rapidly drunk, and then the lemonade is slowly drunk—masking the detestable taste of the purgative, and supplying each fluid to prevent its proving to irritating. Corsican moss is another substance which children take with difficulty: but if an infusion be made and strained, and then added to unsalted beef tea, it will be readily swallowed.

Calomel is one of the most difficult medicines to give, when children are too young to swallow pills, which is the case under six years of age. Incorporating it into honey is the best means—rinsing the mouth afterwards, to prevent any adhering to the gums. It should never be given in currant, or any other jelly; a death having occurred a few years since from the conversion of the calomel given in current jelly, into a bichloride. It is safest to prohibit any acid drink being taken on the day that calomel is given. Ipecac may be given either in the chocolate panada or in honey.

When it is impossible to give any medicinal substance by the mouth, it may be administered by the rectum, taking care first to empty the gut by tepid water or an emollient decoction, and that the bulk of the medicated enema does not exceed from four to six ounces, so that it may be retained and absorbed.

INDUCTION OF PREMATURE LABOR BY UTERINE CATHETERISM.

BY PROF. BRAUN, OF VIENNA.

(From the Nor. Amer. Chir. Reviews.)

Professor Braun, of Vienna, states that he has for several years given a preference to this mode of inducing premature labor; inasmuch as it is very certain, operates rapidly and safely, brings on the pains with gradual energy, gives rise to no ill consequence, such as congestion or injury of the uterus, or detachment of the placenta, and is performed by the simple application of a simple instrument. One disadvantage of the procedure is, that the membranes may become somewhat easily ruptured, especially in primiparæ. In order to prevent this accidental rupture, the author softens in hot water the end of a well-oiled catgut bougie, a foot long, and from two to three lines thick, and passes it along the index finger with a twisting movement to the uterine cavity, until only a portion, equal to two fingers' breadths, remains in the vagina. The bougie so passed always excites pains in from six to twenty hours, does no injury to the membranes, and is to be removed only just before the discharge of the waters, or the

birth of the child. The employment of a gum catheter, having a very thin, flexible stilette, is usually also attended with good effect. Its application is difficult, however, when the vagina is narrow, and deviates from the pelvic axis. During the session 1857–8, Professor Braun employed catheterism twelve times, nine children being born alive, and six dead—three being twin-births. Of the mothers, eight recovered, and four died during the puerperal state, pneumonia, tubercle, and Bright's disease having been respectively the causes of death.

The labor was terminated at an average period of twelve hours after the introduction of the catheter. Brief accounts of these twelve cases were subjoined.

IODIDE OF POTASSIUM AS AN ANTIGALACTIC.

BY PROFESSOR ROUSSET.

We extract the following from the *North American Chirurgical Review*, translated from the *Journal de Bordeaux*.

"The troublesome milk-knots which tend to appear especially at the commencement of lactation, giving rise to fever, inflammation of the breast, and abcesses, indicate a diminution of the secretion of milk by therapeutic means. As the usual measures (emollient cataplasms, dieting, and laxatives) had frequently proved insufficient, the author tried the iodide of potassium. The results were as follows:—The iodide of potassium occasions a considerable decrease of the milk, and in consequence prevents and remove milk-knots, particularly if at the same time the child is put to the breast. The milk returns quickly, if the medicine is not used any longer than two to three days; its effect is more decided if the dose does not exceed forty to fifty centigrammes daily. The secretion of milk can be prevented almost completly if the iodide of potassium is given on the first or second day after delivery. The author gives a full report of seven cases to confirm the above statements.

Editorial.

MYSTICAL MEDICAL POLITICS.

"The editor of the Chicago *Medical Journal*, speaking of the recent stampede of the Southern students from Philadelphia, says, 'if a *political* movement, he should regret it. But if, on the contrary, it was the result of a returning sense of the *mistake* the young gentlemen committed in passing by the schools of their own states, *especially for those of Pennsylvania*, he cannot but commend their judgment.'

"What do the words we have italicized mean? Would the 'mistake' have been less if the young gentlemen had passed by the schools of their own states for the Rush Medical College at Chicago?

"Our confrere is not alone in his wish for a more equal distribution of students, nor in his objections to five hundred being gathered on the seats of a single lecture room, as at Philadelphia. So, also, there are many of the teaching brethren who will join him in 'the hope that hereafter the medical students of the *West* will not be behind those in the *South* in their attachment to the institutions of their own particular *sections!*' But we are sorry to see sectionalism invoked in this connection. It is as bad as 'Helper's book,' which forbids employing Southern physicians. If this be not political, it would puzzle Dr. Brainard to find it. But Philadelphia will survive it; and we see no other way to have it otherwise, than to make a better school in Illinois than they have in Philadelphia."

We extract the above paragraph from a recent number of the *American Medical Gazette*, edited by Dr. D. M. Reese,

on account of the fairness and independence which generally characterize that journal. If the editor had transferred the whole of our article it could not have been supposed that we intended to discriminate against Philadelphia schools.

There is nothing mystical about our views of the matter of medical teaching. We are of the opinion that many students resort to Philadelphia from the regions of St. Louis, Cincinnati, New Orleans, and perhaps New York and Boston, who would be as well intructed in these cities respectively, as they can be in Philadelphia. We look upon such students as making a mistake, and acting under erroneous impressions of the relative advantages of these cities.

If students left the state of Pennsylvania and adjoining states to assemble in classes of four or five hundred each, in New York, we should think the same of their conduct.

We may be mistaken in the relative value of the medical instruction in the cities named, for we have not visited all of them. But until we can see some evidence of this, we adhere to the opinion before expressed, that it is better for students, the profession, and the public, that medical schools should, when well organized and possessed of ample means of instruction, be sustained by patronage of the divisions of the country in which they are situated, and we shall labor to make one school deserving the support of the population of this region.

NOTES OF SURGICAL CASES.

1. Amputation at the Shoulder Joint.—1. Peter M. Curdy, æt. 21 years, entered the Chicago City Hospital, Dec. 12, 1859, with a large tumor of the left arm. He stated that one year previously, in December, 1858, he had a dislocation of the left shoulder, which remained unreduced for eight weeks. From the time of reduction the shoulder remained painful, and in July, 1859, he perceived a hard tumor grow-

ing from the bone, about four inches below the shoulder joint. This increased in size rapidly, until his entrance into the hospital, when it measured 24½ inches in circumference. His general health was good, although the pain resulting from its weight have recently deprived him of sleep.

The operation was performed January, 4, 1860, in the following manner:—

An incision was commenced upon the top of the shoulder, and carried down upon the tumor, then curved forward and carried down to the axilla; a similar incision commencing at the first was carried down behind. Finding the end of the acromon process involved, this was sawn across. The anterior flap was then completed by cutting down into the axilla, and the artery tied immediately below the clavicle. The subclavian artery had been compressed where it passes over the first rib until this part of the operation was completed. The bone was disarticulated and the operation completed as soon as possible. The venous hæmorrhage was copious and six arteries required ligatures.

The patient bore the operation well, and for twelve days no symptoms of a dangerous character were noticed. During the night of the 16th of January, a copious hæmorrhage occurred which so reduced him, that he died about eight hours after.

On dissection the hæmorrhage was found to have occurred from the axillary artery where it was tied. No coagulum had formed within it in consequence of three arteries of considerable size originating near the point of ligature, and passing into the flaps in such a manner as to prevent the formation of an internal coagulum. The wound otherwise was of healthy appearance, and a large part of it had united by first intention and by cicatrization. The tumor seemed to be enchondroma.

2. This was the patient upon whom resection of the head of the humerus was performed November 27th, as reported in the number of this *Journal* for December, 1859.

The patient did well for five weeks, when an aneurismal tumor was perceived below the clavicle. This ruptured and

a copious hæmorrhage occurred through the fistulous openings which still existed at the seat of injury. This was arrested in a degree by compression, and the amputation at the shoulder was performed in the same manner as in the preceding case. The loss of blood, however, had been too great, and the patient survived only about two days and a half.

2. Amputation of the Thigh for disease of the Knee Joint.—Transfusion of Blood.—John Irwin, a patient affected with caries of the knee joint, and extensive suppuration for several months for caries. This patient had been advised and urged strongly to submit to amputation, but declined. When however, it became evident that he was sinking under the disease, he consented, but delayed the operation for ten days, in which to be able to communicate with his friends. When at length, he was prepared for the operation he seemed little likely to survive it. In order to obviate the danger from loss of blood, I had an assistant hold a bowl under the member at the moment of the incision, in order to catch the blood and stir it so as to separate the fibrin. This bowl was placed in another containing water at the tempature of 98°. When the bone had been sawed, and the small vessels secured, the patient appeared to be dying from syncope. I then fixed the the tube of the transfusion syringe into the femoral artery where it had been divided upon the stump, and the syringe at the proper tempature, I charged it with the difibrinated blood which had been actively agitated so as to be of a bright red color, and threw gently into the artery, nearly all the blood which had been secured. A light tremulous movement followed and for about a minute no change was perceived, but at the end of this time the respiration and the action of the heart became more regular, and he was soon as well as before the operation. The blood thrown into the artery was just two ounces.

The points of importance in this operation I conceive to be *having the blood perfectly difibrinated, kept at the tempature of from* 95 *to* 98 *degrees, and thrown in gradually without*

admixture of bubbles of air. The use of difibrinated blood instead of fresh blood thrown from the vein of another person, is made in conformity with the recommendation of Dr. E. Brown Sequard, founded upon numerous experiments on animals.

The choice of the artery instead of a vein for the transfusion, was made for these reasons:—

1. It obviates the danger of fibrinous clots passing to the heart.

2. It diminishes the danger of air bubbles passing to the heart. These are the great dangers of transfusion.

This plan occurred to me as early as 1840, while attending the physiological lectures Magendi, at the college of France. I have often seen him insert the point of a syringe into an artery and when the pressure of the blood had raised the piston, push it down again so as to return the blood into vessels from the syringe without producing thereby any injurious effect upon the animal. Several times since I have seen patients on the point of expiring after amputation and other operations, in which great arteries had been divided, and the advantage of using the blood lost, and the arteries divided for the purposes of transfusion, has each time suggested itself to my mind.—But this was the first case in which the necessity of resorting to it has been so far anticipated as to induce the preparation necessary for carrying the plan into execution. This patient reacted from the effect of the operation, and for one week there seemed a prospect of recovery, but his exhausted condition and the abundant suppuration which took place from the stump, were unfavorable, and he died Jan. 20th, thirteen days after the operation.

3. On the use of Subcataneous Perforation of Bone in Anchylosis of the Knee Joint.—Jan. 2d, Miss House, æt. 16 years, from Kankakee, Ill., presented herself at the clinic for the purpose of being treated for an anchylosis of the left knee. The leg was flexed to about 60 degrees from the straight position, and capable of movement just percepible by

the application of force. The mother stated that two years previously, the knee was attacked by a severe pain, which was followed by swelling of the member from the foot to hip. The pain continued for several months and was regarded as rheumatic.

At present the health is good, and the knee free from pain, swelling, and tenderness.

Treatment.—Jan. 4th, 1860, the patient being under the influence of chloroform, efforts were made to break up the adhesions and flex the leg upon the thigh. Considerable movement of the joint was produced, but the patella seemed firmly fixed to the femur and could not be moved by any force deemed proper to apply.

In order to detach it, the instrument used for subcataneous division of bone, heretofore described in this *Journal*, (see fig. half size) was inserted through the skin on the outside of the patella, and carried between the two bones. At the upper part only, the patella was fixed to the femur by bone. Separation was effected by perforation and by using the instrument as a lever, and the patella was loosened with a snap. The instrument was then withdrawn, the puncture covered with adhesive plaster, compress and roller. The skin was drawn forward the puncture, so that after the wiihdrawal of the instrument, the wound was distant from the external margin of the patella one and a half inches.

Some appearance of ecchymosis followed, but little tenderness. Ten days after, viz: January 13th, 1860, the puncture was healed. The patient was again put under the influence of chloroform and efforts at flexion repeated. This time they

were successful, and with moderate force the leg was bent beyond a right angle and considerably straightened; the patella following the movements. The pain following this treatment was not great. An extending apparatus was applied on the 18th, and gradual extension kept up. At the present time the leg is nearly in a straight position.

This method of detaching the patella from the femur, has not been used before, and is an application of the plan proposed by tho author in the prize essay of the American Medical Association for 1854. It has, however, been used three times in other deformities; viz: first by the author for deformity after fracture of the leg; second, by Professor Paul F. Eve for the same cause; third, by Professor Pancoast for anchylosis of the knee. The result in the first two cases was perfectly successful; that of Professor Pancoast was progressing favorably, when the report was made.

BOOK AND PAMPHLET NOTICES.

THE OBSTETRIC CATECHISM: containing two thousand three hundred and forty-seven Questions and Answers on Obstetrics proper. By JOSEPH WARRINGTON, M. D. One hundred and fifty Illustrations. Philadelphia: J. B. Lipincott & Co. 12mo. Pages, 445.

This little volume is intended as a *vade-mecuum* a reservoir of knowledge, on an important department of the science and art of medicine. The questions are in general well put, and the answers correct; and so long as the book is used as a *test* book, and not as a *text* book, it may be worthy a place in the library of the physician and student.

THE KANSAS CITY MEDICAL AND SURGICAL REVIEW.

We have received the first number of this journal, a periodical of forty-eight pages, published bi-monthly, in Kansas City, Missouri, at $2.00 per annum, in advance. The mechanical execution of this work, commends itself at once to our

notice, and on examination of its table of contents, and the matter of its pages fully sustains the favorable impression that its external appearance produces. It deserves to be amply sustained, and we hope such may be its experience. We hail with pleasure every indication of the "Westward march of Empire."

M. B. Maughs, M. D. and T. S. Case, M. D., are its Editors and Publishers.

To Subscribers.—Correspondents and those sending us their names as subscribers for the *Journal*, will save us much trouble, and insure to themselves prompt attention to any requests contained in their letters, by giving their address in full. So many towns in different States have the same name, that when the name of the State is omitted, we are often entirely at a loss where to mail the *Journal*, or direct answers to letters.

Any subscribers who do not receive the *Journal* regularly, will confer a favor by giving us immediate notice of that fact and if the fault rests with us, it will at once be corrected.

☞ The Rush Medical College Clinic will be continued every Saturday, at 3 o'clock, during the Summer as usual.

All operations performed there gratuitously. The Alumni and friends of the Institution are invited to attend.

Spies and irregular practitioners will be excluded as heretofore

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☞ A valuable communication from Springfield, Ill., on Spine Bifida, has been mislaid. We will feel obliged for another copy.

☞ The article in the January number on *Rhinoplasty* operations, the title of which was omitted, was by the senior editor.

Obituary.—Died at Pecatonica, Winnebago Co., Ill., of typhoid fever, Dr. A. W. Butler, aged 40 years.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. MARCH, 1860. NO. 3.

Original Communications.

ARTICLE 1.

CASE OF EXTRA UTERINE PREGNANCY,

CONTINUING THREE YEARS AND SIX MONTHS—FŒTUS REMOVED BY GASTROTOMY.

REPORTED BY C. GOODBRAKE, M. D., OF CLINTON, ILL.

[Read before the DeWitt County Medical Society, Jan. 3, 1860.]

Mrs. Freize, the subject of the following report, a lady of medium hight, very lean, and about 43 years of age; was brought to my office by her husband, from Piatt county, on the 17th day of last October. The lady informed me that she wished to get my opinion of her case, of which she gave me the following history:

She has had nine children, the youngest about six years old; has been a very stout robust woman, able to do a great deal of hard labor. About April, 1856, she supposed herself pregnant, and in the fifth month she felt the fœtal movements distinctly. She discovered no difference between her then condition and her previous pregnancies; only, that she had more trouble in voiding urine—micturition being very frequent and painful. Some time in the following December, strong bearing down pains came on, and supposing herself in labor, she

sent for her family physician, who, judging from her pains, encouraged her with the assurance that her labor would soon be over. In this, however, both the physician and herself were disappointed, for in a few hours her pains gradually subsided, and the doctor after an examination, informed her that her full time had not yet arrived, and left her. She continued to have more or less pains of a bearing down character for two or three weeks, when she again thought herself in labor, and the doctor was again summoned, and after remaining with her a good many hours, he left her as before. From this time on, she continued to have pains of more or less severity; became very anxious about her condition; consulted a great number of physicians, who all differed to some extent in their diagnosis, some of them supposing it to be an ovarian tumor, while others fell in with her own idea of the case, namely, that it was a fœtus. One physician whom she consulted about it three months after the first time she thought herself in labor, prescribed, as she said, some medicine to produce contractions of the uterus, which brought on her menstrual discharge—since which time she has continued to menstruate regularly, up to the time of my seeing her. Her almost constant pains, and her great anxiety about her condition, produced a gradual wasting of the flesh, with diminution of physical strength.—Upon close questioning, she says positively, that there never was any sudden sensation of tearing or giving way in her abdomen, neither had she ever any sudden feeling of faintness or any other symptom which would indicate a rupture of the uterus or Fallopian tube. She also states, that up to the time when she considered herself at full period, and for some time after, her abdomen was elastic and of uniform size; but after that time it became gradually harder and of irregular shape—the bulk of the tumor occupying the right side. She also states, that for some time after her expected confinement, her breasts secreted milk. She informed me that all the physicians she had consulted agreed that no medicine could do her any good, and that if she did not wish to trust to nature for a remedy, she would be compelled to have recourse to surgical aid. And it was very evident that she had fully made up her mind to submit to an operation.

Upon examining the abdomen, I found a large tumor occupying the right side, extending from the illiac fassa, to above the umbilicus, and a little to the left of the linea alba. The tumor felt hard and somewhat irregular, and *appeared* to be movable to some extent.

On examination per vaginum, I ascertained that a round tumor, presenting a round smooth surface, occupied the pelvic cavity. It impinged firmly on the right side, but the finger could be made to pass between it and the wall of the pelvis on the left. The uterus occupied a position behind and to the left of the tumor. I was unable at this examination, although I used my best endeavors, to find the os tincæ. A catheter introduced into the uretha, passed behind the tumor—indicating that both the uterus and bladder were crowded from their true position.

I was not satisfied as to the character of the tumor. At first I was inclined to favor the lady's notions of the case, and believed it to be a case of extra uterine pregnancy, but upon consulting my books, and revolving the case in my own mind, I reasoned myself completely out of that belief, and came to the conclusion that it was most probably a fibro cartilaginous tumor. The woman wishing to know whether I would undertake its removal, I informed her of the *uncertainty* of the nature of her case, of the danger of an operation, and endeavored to prevail upon her to go to Chicago and take the advice of Professors Brainard, Byford and Miller; but she and her husband both answered, that their pecuniary means were not such as to justify them in going to Chicago or Cincinnati; that they had consulted a great number of physicians, that they had been recommended to me by their friends, and they wished me to operate.

I finally agreed to visit her at her residence, on the next Monday; ordered her to take a dose of oil on the Sunday previous, and not to take any breakfast, except a little tea or coffee, on Monday morning. I promised to open the abdomen, and if it was found that the tumor could be removed without endangering her life too much, I would extirpate it; but, if on the other hand, it should prove to be too strongly

adherent, or of such a character as that its removal could result in no good to the patient, I would close the wound, leaving the tumor *in situ*. I told the woman to take her case into serious consideration, and if she came to the conclusion not to have the operation performed, to let me know in the mean time, by letter or otherwise.

Accordingly, on Monday, the 24th day of last October, I visited Mrs. F. at her house, accompanied by Drs. Lewis and Tyler of Marion, and Drs. Richards and McHugh of Mount Pleasant; also, Messrs. B. K. Shurtleff and Rolla Richards, medical students. Several of the gentleman present had previously examined the case, but it was deemed advisable to make another thorough examination. At this examination, the mouth of the uterus was found, and we endeavored to introduce the uterine sound, but this was found impracticable on account of the obliquity of the uterus, and the encroachment of the tumor.

The lady, as well as her husband, were again advised of the severity, immediate danger, and ultimate uncertainty of the operation. However, with all these facts before them, they still urged that an operation should be undertaken.

In view of this determination on their part, the preliminary arrangements were made. The atmosphere of the room was kept moist by the evaporation of water from kettles on the stove. An artificial serum was prepared according to Doctor Peaslee's formula;* and all preparations made that were deemed necessary. The woman was placed on a table, the head and shoulders raised, a sheet applied as a diaper, and the operation performed in presence of the gentlemen already named, who kindly assisted by their council.

The patient being under the influence of a mixture, of one part chloroform to four of sulphuric ether, I made an incision in the linea alba, about four inches in length, down to the peritoneum, no hæmorrhage occurring, I cut down through it also. I now introduced my hand, after immersing it in the artificial serum, and soon satisfied myself that it was actually a fœtus enveloped in a sack of its own. The sack was found firmly adherent in the right illiac fassa, and to a considerable

* Amer. Jour. Med. Sciences. Vol. XXXVI, Page 895.

extent, to the prietal peritoneum on the right side. There were no adhesions anteriorly, nor to the intestines, which were all crowded to the left side. This diagnosis was confirmed by Dr. McHugh, who also made a thorough examination. In order to ascertain the condition of the fœtus, a small incision was made in the sack, when it was found in a pretty good state of preservation; and upon a hurried consultation, it was deemed advisable to remove it, and as much of its sack as practicable.

The incision was now extended upwards as far as the umbilicus, and down to within an inch of the pubes. The incision through the sack was also enlarged, when the fœtus was removed with great difficulty, owing to the strong adhesions between it and the sack. When the fœtus was lifted out, the cord was found to be yet entire and attached to a very small placenta of a cartilaginous character, low down in the pelvis. The placenta was located immediately over the space where the sack also adhered to the broad ligament. The uterus was a little enlarged, but otherwise it seemed in a normal condition. The cord, as much of the placenta and sack as could be got away without lacerating the peretoneum, was now removed, the parts carefully sponged, and the incision brought neatly together by the interrupted suture, supported by adhesive strips; and the dressing finished by the compress and bandage. The patient rallied from the effects of the anesthetic about the time the dressing was completed, and was placed snugly in bed, a dose of laudanum was administered, and she expressed herself as quite comfortable. Her pulse was good.

The time occupied in bringing her under the influence of the anesthetic, in the operation, and until she was placed in bed, was 45 minutes, as observed by Mr. Shurtleff. It was estimated that there was not over an ounce of blood lost during the operation.

The patient was left, according to previous arrangement, in the care of Drs. Richards and McHugh; one of them remaining the first night at her house. They visited her regularly afterwards, twice a day. The bladder was evacuated morning

and evening, and opium and brandy administered according to indications.

The physicians reported that the patient did quite well for the first 48 hours; after which she became restless, her pulse grew gradually weaker and more frequent, until it became imperceptible at the wrist.

Dr. McHugh informed me that the wound looked well, and that there was no swelling of the abdomen up to the time of her death, which occurred on the fifth day after the operation.

A post-mortem examination was solicited, but was refused by the friends.

The fœtus, which I presented to the Obstetrical Museum of the Rush Medical College, is of female sex, of medium size as at full period; well developed; nails on fingers and toes well grown; weight not ascertained. The position it occupied in the abdomen was as follows:—The thighs were flexed on its abdomen, and the legs flexed on the thighs, with the face doubled low down between the knees, and it was kept in this position by the strong adhesions between these several parts. The head rested in the right illiac fassa, and the breech, being to the left of the head, passed down, to some extent, behind the pubic bone, displacing the uterus and bladder as before described. The only mark of decomposition observable on the fœtus, was on the side, where a spot about twice the size of a dollar had sloughed out, exposing the ribs and some of the internal organs.

Remarks.—The question may with great propriety be asked—was it right and proper to operate, in the case of Mrs. F.? I would answer, that it would certainly have been better for the woman if she had not submitted to the operation; as she might, probably, have lived several years. Though this is only a probability; for where the sloughing had commenced on the fœtus, there was no adhesion, neither between it and the sack, nor between the sack and the walls of the abdomen. So that if decomposition of the fœtus had advanced, the woman must have died. And even in a large majority of the cases on record, where adhesions have taken place, and where the sloughs have found their way through the walls of the abdomen, the patients died nevertheless.

If, when I opened the abdomen, I had found a tumor as strongly adherent as was the fœtal sack, I would most certainly have desisted, and closed the wound, according to my promise to the patient. But finding a fœtus, and the edges of the wound retracting strongly, it was deemed impossible for the wound to heal before fœtal decomposition would have set in, which would have made a very bad case of it indeed.

ARTICLE 2.

ON THE USES OF OPIUM.

BY CHARLES BRACKETT, M. D., OF ROCHESTER, FULTON CO., IND.

Editors of the Journal:—

I have read with pleasure and profit, the article on opium, by Dr. Hudson, in the January number of the *Journal* of this year.

Its effects, in some varieties of chronic ulcers, are often most astonishing. My attention was drawn to its use for the cure of indolent ulcers, by an article in some one of the *Journals* several years ago. I do not recollect now what *Journal*, but it has always since done all that is claimed for it in my hands; and I could give up all other medicines for these common and stubborn affections except opium. I usually direct a full dose, sufficient to produce free diaphoresis at bed time.

My experience with it in Typhoid fever is very limited as the disease seldom occurs in my practice.

For inflammatory diseases generally, and especially those of the mucous membranes, full diaphoretic doses in the commencement of the disease, and repeated as occasion requires, are frequently all-sufficient to cut short the disease within twenty-four or forty-eight hours.

I was first led to its use in catarrh, or cold in the head, by an article in one of the first numbers of the *London Lancet* that I ever saw. I was then a student with Dr. Mungo White,

of Cherry Valley, N. Y. Subject then to the disease myself, I took ten grain doses of Dover powder, every twenty minutes, till free diaphoresis came on. The next morning, to my surprise, I was cured. The mucous membrane of the nose and the conjunctiva, instead of secreting a thin, acrid fluid excoriating cheeks and lips, felt well and free from all discomfort, and a distressing affection, usually lasting about a week, was cut short in one night. I next tried the remedy on a niece of the Doctor's, who was also habitually subject to catarrh. I showed her the article in the Journal, told her how much I was benefitted by it. She was anxious to try it; and upon her promising not to tell the Doctor that I had so commenced practice, I gave her the Dover powders in ten grain doses, till sweating supervened. A complete cure was the result; she getting up next moruing free from all symptoms of cold in the head. Since that time, now probably seventeen or eighteen years, I have never known it to fail in a single instance, when it could be taken as above. I have, however, for the past seven or eight years, almost discarded the Dover powder in *toto*, using the crude opium, or by times morphine alone.

The following is a case of croup, completely cured by a large dose of morphine:—

Anna Brackett, my daughter, æt. about fourteen months, had for several nights in succession croupal symptoms, with raging cough, feverish action, and considerable difficulty in breathing during the day. I had been absent, and she had taken only household remedies. On the evening of my return home, her symptoms were such as made me quite uneasy. I mixed about one grain of Sul. Morphiæ in about ten teaspoonsful of onion juice well sweetened with honey, and directed a teaspoonful every half hour. I gave the first dose; my wife not understanding fully the directions, and supposing the medicine in the saucer was to be given *ad libitum*, gave the child what it would drink. It soon becoming so quiet, my wife was frightened, and called me to see what was wrong. I asked about the medicine, and she told me what she had done. I did not tell her that I was uneasy, or that she had

done wrong, but with my fingers on its little wrist, and sleep less eyes, for some time watched carefully for symptoms of dangerous portent; but they did not come; on the contrary, quiet sleep, easy breathing, and free perspiration followed this dose of over *half a grain of morphine* to a child but a trifle over a year old. On the next morning, bright eyes, a cheery laugh, perfect ease of respiration, and freedom from fever, told the tale of recovery; and no symptom of croup has ever since attacked our youngest born.

I have treated many cases of dysentery with morphine or opium alone; except the using of free injections of warm water, milk, or starch, to wash the mucous coat of the rectum of irritant secretions; and with such treatment am better satisfied than with the more complex and torturing modes.

I look upon opium as one of the most perfect antiphlogistic remedies we possess. It will deplete the system of quarts by the skin, when ounces taken from the vein would leave the system more prostrate and less comfortable. By this free cutaneous drain, we probably rid the system of morbid matters or humors, if any such are present, while by the lancet we deprive the system of so much life. "The blood thereof is the life thereof." The superiority of opium over the lancet, is best shown in pleurisy, where diaphoresis induced by opium makes the more perfect and speedy cure.

I came to this country in the fall of 1845; during the winter following, we had many cases of pneumonia. Within a short period, my brothers (James and Lyman, then practicing here) sent me to see four cases which proved fatal within a few hours from the time I saw them. They had been treated by other practitioners according to the old rule of puking, purging, and bleeding; after seeing the fourth case die, and on my return to the office, I threw the pill-bags under the counter, and remarked that if there were any more patients to visit in *articulo mortis*, they might count me out, for I would not see another second hand case for a short time at least. They both laughed heartily at me, and after I cooled down, they told me they had sent me to see those cases, for the sake of teaching me a lesson in the treatment of pneu-

monia; that they knowing how these patients had been treated, knew what the finale would be; that I must depend less on the lancet; more on opium, quinine, blisters and antimony; being careful not to use cathartics; and that especially I must depend more on quinine and opium, with supporting adjuvants, for the cure of pneumonia attacking those long resident in this miasmatic region. Since that time, fifteen years, I do not think I have seen four fatal cases of pneumonia; and during the whole time I have been in active practice, except during the winter of 1848–9.

That this result is attributable in a great measure to the lessons I received from my brothers in the fall and early winter of 1845, I have no doubt; if I am successful at all in the treatment of pneumonia, opium is one of, or rather the head agent.

ARTICLE 3.

CASE OF A TUMOR,

APPARENTLY CANCEROUS, DISAPPEARING SUDDENLY.

BY T. B. COX, M. D., OF KIRKLIN, IND.

Mr. M. P——, æt. 40, presented himself at my office, to consult me respecting a tumor in the inguinal region, of three months standing.

Present appearance.—Has attained considerable size, extending nearly across the inside of the femur, and longitudinally some six inches; the upper margin being rather illy defined. Nothing unusual in external appearance; rather a bluish cast; no enlarged veins to be seen; soft and elastic to the touch.

Previous History.—On first making its appearance, was supposed to be an abscess, consequently was poulticed and lanced; instead, however, of pus, a little dark blood oozed from the opening.

General Health—Not good; skin rather a sallow hue; appetite moderate; bowels somewhat costive; has had several slight chills previous to this time, for which quinine was given with success. Fearing the malignancy of the disease, I postponed giving a definite answer as to the propriety of an operation, for which purpose I was consulted at the same time, guardedly hinting my fears to the patient; but being of rather a hopeful disposition, and having all his life enjoyed moderate health, he was slow to believe.

January 26th, met my friend Dr. C—— of Frankfort, at the residence of the patient. Appearance of the tumor not much altered; general health declining; slight fever, but a full flow of spirits, and a fixed determination to undergo an operation. At the suggestion of Dr. C., I introduced a probe, which passed easily through the opening without producing the least pain; but was followed by the loss of half a pint of blood, upon which the patient grew very faint, and became convinced that his health would not admit an operation.—Sulph. Quinia and Mur. Tinct. Ferri, were then prescribed in order, if possible, to improve his general health, though on our part with but little hope of any benefit.

February 1st, health not improved in the least. A fungus growth has made its appearance at the opening, resembling fungus hæmatodes, as described by Gibson. Gave a mild alterative and tonic treatment.

Feb. 16th. Tumor presents a ragged appearance; has bled but little; lymphatic glands considerably swollen, especially in the axillary region, and about the neck.

Now told him plainly that all hopes of benefitting him by an operation, were abandoned. Gave him full doses of Iodide Potass., four times per day.

February 27th. Patient rapidly declining; upper margin of the tumor better defined; prescribed Fowler's solution three times per day, in eight drop potions, alternated with sulph. quinæ.

March 2d. Considerable fever in the afternoon; tongue cracked; bowels tender; bloody stools; general symptoms, typhoid. Recipe—Turpentine emulsion at proper intervals, alternated with stimulants.

Suffice it to say that in a few days from this time, our patient died, with every vestige of the original tumor removed, and entire subsidence of all glandular swelling.

Was it fungus hæmatodes? It was surely some kind of soft cancer.

To my mind, the most interesting feature of the case, was the rapid recession of the tumor, and the consequent rapid decline of the patient. Was the deposit going on in some other organ? No symptoms of disease were detected in the lungs or heart. The spleen was, however, somewhat enlarged, but the patient lived in a malarious district, and had had ague. Was the tumor absorbed in the circulation, thereby acting as a poison?

ARTICLE 4.

TREATMENT OF INDOLENT ULCERS.

PARTICULARLY THOSE OF A LYPHITITIC CHARACTER.

BY B. WOODWARD, M. D., OF GALESBURG, ILL.

The *Chicago Medical Journal* for the present month, contains an editorial on "the treatment of indolent ulcers by vapor of iodine," and the mode of using the vapor. During the winter of 1856–7 it was my privilege to attend the teachings of Professor Brainard at the Marine Hospital, Chicago; and while there, had the opportunity of watching this mode of treatment of various cases in the hospital. Of several of these cases I kept copious notes, some of which I will condense for the present article.

Morris Joice, seaman, on admission to the hospital, November 3, 1855, had an ulcer of eight months standing, covering the middle of tibia of the right leg. The ulcer was five inches long, and three inches broad; surface much depressed, and covered with gray exudation; outline regular, and edges

ragged. Professor B. directed it to be treated by iodine vapor. No constitutional treatment, as he wished to test the iodine treatment.

On the 12th of the same month, the ulcer had become reduced in size, one half, covered with coagulated lymph, and healthy granulations all over the surface.

November 22d. Ulcer not larger than a twenty-five cent piece; granulations rise even with surrounding surface; continue vapor of iodine. By the 8th of December, the leg was entirely healed. This man had never had syphilis.

November 14th. Thomas Rigby, seaman, admitted to hospital, with a large ulcer over the external malleolus, of several weeks standing. Ulcer an inch and three quarters long, and an inch and a quarter wide; surface much depressed, and covered with a gray exudation mixed with coagulated blood.

Recipe—Iod. potassa, five grains in solution, three times a day, and to ulcer iodine vapor. This treatment was continued ten days, by which time the ulcer had become reduced to the size of a five cent piece. By the 5th of December the ulcer was entirely healed.

During the winter the treatment by vapor of iodine, was adopted in the hospital in several other cases, with the same marked success.

The doctrine of Professor Brainard was, that an ulcer was an absorbing surface, and that iodine applied in this way had not only a local, but a constitutional effect. To prove this, at the request of the Professor, Drs. Powell, Durham, and myself, subjected the urine of Morris Joice and two others, on whom iodine had been used in no other way than the local application of the vapor, to chemical test, and in each case the presence of the iodine in the urine was proven.

Since that time I have used iodine by Dr. Brainard's method in the treatment of indolent ulcers, with the best results. Where the ulceration has been the result of syphilis, I have found the exhibition of iodide of potassa to materially aid in effecting a cure. In one case of scrofulous ulcer of the neck in a young woman, which had remained open for four months, the iodine vapor effected a cure in three weeks. I am now

using it in a bad case of ulceration of the foot from frost bite, with the best prospects of success.

ARTICLE 5.

PERIODICITY OF INTERMITTENT FEVER.

BY D. L. ROBINSON, M. D., OF NEW ELIZABETH, IND.

The periodicity of intermittent fever, has long been a theme of great interest among medical men. They have in all past ages exhausted their medical talent in trying to account for, and put forth a rational, and consistent theory for the mysterious, and regularly periodical return of the malady when it has once attacked its unfortunate victim. There is so much conflict among our best medical authorities on this subject, and so many inconsistent hypotheses, that I have almost concluded that the best of them knew but little about it. I am of the opinion that Miller in his *Principles of Medicine*, has come nearer the truth in the premises than any authority I have yet consulted. He says:—"One of the most remarkable characters in the disease resulting from malaria, is the periodicity of their attacks, and the diminution or cessation of the symptoms in the interval. This is probably due to the alternate accumulation of the malarious influence in the body and the reaction of the vital powers against it."

Now I propose in the present article to add my *mite* in as brief and concise a manner as possible, to the numerous *hypotheses* and *conjectures* that have been made and recorded with regard to this interesting subject—the periodicity of intermittents.

We are told—and rationally told too—that a bony tumor growing upon the inner tablet of the skull bone, and dipping down into the brain structure, gives rise to a very high degree of irritation; and that, that irritation causes the most alarm-

ing epileptic convulsions—that those convulsions are paroxysmal, having complete intermissions of perfect quietude between the paroxysms. Now the important question very naturally arises just here, why are those convulsions paroxysmal—the cause is continuous—present all the while? Our medical authors very consistently solve this problem for us. They say that this constant source of irritation in the brain, is continually giving rise to excitement of brain and nervous system; that this excitement (or irritation) accumulates to a sufficiently high degree to cause a convulsion; the convulsion persists until excitability in the brain and nervous system is exhausted; then a stasis, or period of comparative quietude, longer or shorter, is observed, until the susceptibility to excitement from this source of irritation present, is recovered, at which time, excitement of brain and nervous system again accumulates to a sufficient degree to cause another convulsion or paroxysm.

It will be easy to observe the end aimed at by this illustration. It is to put forth the idea—however absurd it may seem—that the cause of irritation (or *sedation* if you please) in an intermittent, acts upon the *same principle* in giving rise to paroxysms of ague, that the bony tumor or spicula of bone does in epileptic convulsions.

The *cause* of intermittent fever, all agree, is *marsh miasmata*; and I contend that its principle process of reaching the human system is through the medium of the atmosphere: that it is inhaled into the lungs, thereby admitted into the circulation in general, and diffused throughout the entire system. It first blunts the sensibility, or paralyzes the extremities, or periphery of the whole nervous system. Thus it suspends nervous innervation to the superficial, or capillary circulation in general, causing the blood to recede to the internal viscera, the spleen, liver, and vital organs generally; thereby diminishing animal heat *externally*, and causing congestion *internally*, and *constituting* what is termed the cold stage, or chill. This stage, or condition, persists until the nervous system survives the first impression, or shock, produced by the malarial poison; then those overburdened organs make an effort to relieve themselves of their ponderous load

of blood; by that means, *reaction*, the hot stage, or fever, is developed. This fever may persist for a longer or shorter period, being governed by the amount of poison present, the temperament and condition of the individual; at all events, it persists until excitability in the nervous system is exhausted, at which time we have the apyrexia, or intermission, which lasts until the nervous system regains susceptibilty to the exciting influence of the miasmatic poison; then it sets up its irritation again, and the system is brought under the same excitement again, which constitutes another paroxysm, or *fit of ague*. Thus it continues to operate until nature, by the paroxysms, eliminates the whole of the miasmatic poison, or until it is neutralized by remedial agents.

The paroxysms may assume either the quotidian, tertian, or quartan type; that being governed by the amount of the poison diffused in the system, the constitutional vigor, and the temperament of the individual afflicted. Thus, the more constitutional vigor a person of *nervo-sanguine* temperament may have, and the more of the miasm there is in the system, the severer the attack will be, and the sooner the patient will rally from one paroxysm, and go into another. While on the contrary, an individual of the *bilio-lymphatic* temperament who has the system but moderately impregnated with the malaria, will have milder attacks of ague, the paroxysms be longer in passing off, and a longer period between paroxysms.

Enough has been said to set forth my theory upon the periodicity of intermittents, and I here rest the subject, with a hope that also enough has been said to call forth the opinion of the medical brethren generally, upon this very interesting subject.

Arsenious Acid in Chorea.—M. Barthez gives a detailed account of the case of a girl, eight years old, who had been quite healthy previously, but, in consequence of a sudden fright, had been attacked with chorea, six weeks before coming under his care. The patient recovered in a week, under the use of about one-twelfth to one sixth of a grain of arsenious acid three times daily.—*Gazette des Hopit.*

ARTICLE 6.

CASES OF DIPHTHERIA.

BY J. J. MORGAN, M. D., OF WINDHAM, IOWA.

I was called, October 4th, 1859, to see a child, that was said to be seriously ill with sore throat. I found the child going about the house, disposed to play some. I learned that its illness had been discovered some three days previous to my visit. Upon examination of the throat, I found the tonsils considerably enlarged, and covered with a yellowish white looking substance; a part of which could be detached in the form of small shreds, presenting a dirty bluish color, and only moderately tenacious. The fauces were intensely red, as was the posterior part of the pharynx. The whole of the fauces and throat as far as could be seen, presented a peculiar knotted or lumpy appearance, that I have not observed in any other affection of the throat. The febrile excitement, or heat, was not great, although the pulse was a hundred and ten. I prescribed a saturated solution of acetate of lead, adding one grain of morphine to the ounce; this to be used as a gargle, or applied by means of a sponge to the diseased surface, two or three times during twenty-four hours. I gave chlorate potassa, three grains, once in four hours; quinine in grain doses, twice a day; ordered a saline cathartic, which was not at hand; castor oil was used. Visited patient again two days after, found it apparently much better. Continued treatment same as before. Heard nothing more of the case for six days, when the messenger informed me that the spots (which had almost wholly disappeared) were increasing; and that he wanted another bottle of the gargle. I sent, instead of the lead wash, one of nitrate of silver, thirty grains to the ounce; continued other treatment the same. Was called two days after this, (being fourteen days from the time of my first visit) found the patient greatly reduced; the prostration in a great degree, probably due to a profuse diarrhœa, which had super-

vened some two days previous. I gave opium and acetate of lead to check the evacuations of the bowels; continued treatment as before. Did not see the case again, which terminated fatally four days after; about twenty-one days from the time of invasion.

In this family, there had been three children buried within six days of my first visit, who were affected, according to the statement of the parent, in the same way as the one that I have just related. They were aged respectively, five, seven and nine. They were treated by an eclectic physician, who also had charge of the case above described, until I was called. Two more of this family were taken in the same manner as the others, aged eleven and thirteen. The oldest, though the tonsils were considerably enlarged, and the fauces and throat highly inflamed, was but mildly affected; but little of the exudation appearing, and the disease subsiding in eight or ten days. But the younger of two was apparently as aggravated as the one that terminated fatally. This case recovered after a protracted illness of three weeks. The only application made to the throat, was the solution of acetate of lead; the other treatment the same as in the first case.

Called October 8th, to Mr. J. M.'s, found a boy four years of age, breathing as with croup. Upon examination, found the tonsils covered with a heavy coating of the false membrane. In the same family, a boy aged twelve years, presented the same symptoms, except the croupal cough, and labored breathing. To the younger of these, who was evidently laboring under croup, I administered an emetic; gave as a wash to the throat, nitrate of silver, thirty grains to the ounce; directed chlorate potassa; as in the other cases, ordered cathartic. The treatment in these two cases was the same, except in the oldest, the lead wash was used, instead of the one of lunar caustic. The younger of the two, the croupal case, continued to improve to all appearance until the second night from my first visit, when it died suddenly as from spasmodic croup—as the mother expressed it, he uttered one shrill whistle and was dead.

At this time two more of this family were attacked, aged

seven and nine years. The eldest of these passed rapidly into an aggravated form, the false membrane being extensively developed. I used the lead wash in all these cases some four days, when they appeared to be so much improved, that I discontinued remedies, directing an infusion of oak bark and alum, as a gargle. Ten days after this I was summoned to attend this same family; found the disease present with all its former violence. I here resumed the treatment as before, except the application to the throat, for which I used nitrate of silver in fine powder, applying it by moistening the point of a sponge, to which a sufficient quantity would adhere. I cauterized the whole of the surface that was covered with the exudation, but did not extend it to the inflamed parts that were free from the false membrane. This treatment was continued about four days, when they gradually, but slowly convalesced.

A few words in regard to the fourth and last case in this family; the commencement of which was so mild, as scarcely to attract notice. I simply used the gargle of the solution of lead for a few days. But I learned upon being called on the 16th of November, (about thirty-five days from the first appearance of the affection) that he had not been wholly free from the disease at any time; that the tonsils had remained swollen, and the fauces red and inflamed, but at no time had there been present the characteristic exudation, which was now for the first time extensively developed. In this case the pulverized nitrate of silver was used, continuing it with the general treatment, about six days; when after a duration of some forty days, it could barely be said to be convalescent.—In this case the nitrate of silver was applied for a few days after the false membrane had ceased to be formed.

Cholera is said to be prevailing in a very fatal form in the north of Africa. In a body of four hundred artillery-men, one hundred and forty-four died of the cholera in a very short time.

Miscellaneous.

On the Difficulties and Advantages of Catheterism of the Air-Passages of the Chest. By Horace Green, M. D., LL. D., &c.

(Read before the Medico-Chirurgical College, Dec., 22, 1859.)

In December, 1854, I read a paper before the Academy of Medicine of New York, "On the Injection of the Bronchial Tubes and Tubercular Cavities of the Lungs;" and subsequently, namely, in March, 1856, I published in the *American Medical Monthly* a detailed report, containing a statistical table of one hundred and six cases of pulmonary and bronchial diseases, treated by means of catheterism of the air-passages, conjoined with appropriate general remedies.

Still continuing, to some extent, this plan of topical treatment in thoriacic disease, I have since had opportunities to confirm the truth of some of my early observations; and, what is of equal importance, to correct other views which later experience and more extended observations have shown to have been erroneous conclusions. It is to record and announce these recognized errors, and to point out some of the difficulties, as well as the advantages that attend this plan of treatment, that I bring, at this time, the subject of Topical Medication before the College.

I propose briefly to consider the following questions:

1. Can the operation of catheterism of the air-passages be performed with certainty and facility?

2. What are the difficulties and dangers of the operation?

3. What advantages are to be derived from this method of treatment?

1. With regard to the first inquiry—the possible practicability of the operation? On this point it will not be necessary long to dwell. As very few of the profession, at the present day, will deny its performance, under favorable circumstances, I

shall only refer to the opinion of a few members of the profession, from among many of those who have considered this question.

At the discussion that followed the reading of my paper, to which I have alluded, on bronchial injections, before the Academy of Medicine, several years ago, it was remarked by a distinguished member of that body, who denied the practicability of the operation, that "the Academy must not decide this question until we had heard from Europe on the subject, as the profession there would act without prejudice or partiality."

Already, testimony has come to us from eminent men of the profession, in Great Britain, France, and Germany, that this operation of injecting the bronchi has by them been successfully performed.

Prof. J. Hughes Bennett, of Edinburgh, in his work, "*Clinical Lectures on Medicine*," says: "I have now introduced the catheter publicly in the clinical wards of the Royal Infirmary, in several patients affected with phthisis, in various stages, in laryngitis, and in chronic bronchitis, with severe paroxysms, of asthma. * * * I have been surprised at the circumstance of the injections not being followed by the slightest irritation whatever, but rather by a pleasant feeling of warmth in the chest, (some have experienced a sensation of coolness,) followed by ease to the cough, and a check for a time to all expectoration." "These facts are made known to the profession," Dr. Bennett declares, "with a view of recommending a practice which, if judiciously employed, may form a new era in the treatment of pulmonary diseases."*

In Paris, Prof. Trosseau, Loiseau, Blondeau, and others, have succeeded in injecting the air-passages, in various diseases of these parts. It has been employed in early phthisis, by M. Trosseau, as well as in diphtherite, in which latter disease it was attended with complete success.

It has been still more extensively employed by Loiseau, in the treatment of both diphtheritis and croup. The method of Loiseau is thus described by Trosseau, who was appointed

*See Clinical Lectures on Medicine, p. 609.

by the Imperial Academy of Medicine, of Paris, to report upon his plan of treatment: "With the extremity of the forefinger," says M. Trosseau, "he (Loiseau) depresses the tongue, seizes the epiglottis, raises it, and presses the end of the finger between the arytino-epiglottic folds. There is then nothing more easy than to make the end of the tube glide over the finger. The air which escapes through the exterior extremity of the tube proves that it has really entered into the larynx. Through this tube, serving as a conductor, a caustic, the nitrate of silver, for example, or any other medicated substance, may be carried."

In the discussion which took place at the time, before the Academy, on this subject, M. Depaul said, "The process of catheterism of the larynx, as proposed by Dr. Green, was declared by some as being very difficult, even upon the cadaver; but I maintain," said he, "that nothing is easier than this catheterism for those who have performed it a certain number of times." Still more recently than this, comes to us the testimony of Prof. Greisenger, of Germany, as reported in the *Deutsche Klinik*, and in the *Gazette Hebdomadaire*.—Prof. Greisenger has been able, as he affirms, to introduce medications of nitrate of silver solution into the air-passages. In regard to the practicability and danger of this operation, Prof. G. says: "For us, after the experiments we have made, we can affirm that these fears are illusory, and that the different parts of the operation can be performed with a rigorous exactitude." And, finally, we have the testimony of the Committee, appointed by the New York Academy of Medicine, to inquire into the truth of the performance of this operation; for they affirm, in their report, made to the Academy, that of the thirty-two patients upon whom the attempt was made to inject the bronchi, the operation was performed in *eleven* cases successfully, and to the entire satisfaction of the committee. It must, therefore, be concluded that the "operation of catheterism of the air-passages," under appropriate circumstances, can be positively performed.

Notwithstanding this operation is being daily performed at the present time, yet it is not always accomplished with cer-

tainty and facility. Nature has so guarded the opening into ærien passages that catheterism of the bronchi is an operation that will be found difficult to accomplish. In many cases, I am confident, the tube passes over the glottic aperture, and enters the œsophagus, even when the operator feels quite certain that it has been introduced into the larynx. In my own practice I have found myself deceived, not unfrequently, especially in the first years of my experience in this mode of treatment. At first I believed the instrument to have taken the right course, but afterwards ascertained, in many instances, that it had entered the œsophagus.

2. What, then, are the difficulties that oppose themselves to the facile performance of this operation, and what the dangers?

The *epiglottis* does not of itself close entirely the aperture of the glottis. This cartilage being placed between the entrance of the larynx and base of the tongue, is pressed downward by the abasement of the latter, in the act of deglutition, and being moulded upon, only partially closes the glottis. It is not, therefore, correct to state, as many anatomists do, that the epiglottis "closes completely, of itself, the opening of the larynx," in deglutition.

The arytenoid muscles are the especial *constrictors* of the glottis. These muscles (as Longet has demonstrated) receive filaments from the recurrent nerve. Covering the lips of the glottis is a narrow zone of exquisitely sensitive mucous membrane, which receives its nervous filaments from the internal branch of the superior laryngeal nerve. These two nerves, the one supplying the constrictors, and the other this strip of mucous membrane, communicate freely with each other, but they have no connection whatever with the epiglottis. The irritation of this body, therefore, will have no effect upon either the motive or sentient nerves peculiar to the larynx.—This is important to remember, namely: that the epiglottis, in its normal state, is an organ nearly insensible; but when the least irritation of that sensitive portion of the mucous membrane which covers the supra-glottic space occurs, this irritation is quickly communicated to the constrictor muscles,

through filaments of the recurrent and laryngeal nerves, and the aperture of the glottis is as quickly shut up. When it is desirable, therefore, to medicate the ærien passages in disease of these parts, it is necessary, as all are aware, to educate the glottic aperture, by repeated cauterizations of this opening. For if, under ordinary circumstances, the attempt be made to pass the sound, or probang, into the larynx before the exquisitely normal sensitiveness of this point of membrane be partially subdued, it will probably prove abortive; or, if successful, and the instrument be made to pass the supra-glottic guard, a violent spasmodic action, not only of the constrictors, but all the other muscles of the larynx, will occur, followed, often, by great irritation of the parts, and a suffocative cough; and if, under these circumstances, the operator persist in finishing the operation, by injecting a solution of the nitrate of silver into the bronchi, the irritation and cough are both greatly increased, and in some instances inflammation of the bronchial and pulmonary tissue have been awakened, apparently by these combined disturbing causes. This condition, as the result of these causes, may be illustrated by the following case:

Mrs. F., a widow lady, aged 35, recently returned from California, came under my care July 31, 1858; she was in the second stage of tubercular consumption. Auscultation revealed tubercles, with softening in the right lung. The disease of the lungs had been preceded by follicular laryngitis for many months. The right tonsil, which was still ulcerated, was nearly destroyed, and the pharynx was granular from the diseased and enlarged follicles.

She was placed under general treatment, ordinarily adopted in such cases, together with the application of a solution of nitrate of silver to the throat.

This treatment was continued until the 13th of August, when the parts were thought sufficiently prepared to allow the introduction of the injecting tube. On this day I introduced without any difficulty, the tube, and injected a drachm of the nitrate of silver solution into the right bronchus. No irritation followed the operation. As is the case almost invariably, after injections in either pulmonary or bronchial diseases, the

cough and expectoration were considerably diminished for several days after this operation. With intermediate cauterizations with the sponge probang, the bronchial injection was employed on the 16th, the 20th, and the 24th, with similar beneficial results with the first operation, the patient continuing constantly to improve. On the 26th of the month, in attempting to use the tube, the throat of the patient was found to be unusually sensitive, and it was with some difficulty that the instrument was introduced into the larynx. It was passed, however, into the trachea, in precisely the same way that it had been done on former occasions. A spasm of the glottis immediately succeeded its introduction, and instead of withdrawing it at once, as should have been done, I proceeded to finish the operation, and injected a drachm of the solution (15 grains to the ounce) into the bronchi. By the time the operation was completed, the whole chest seemed thrown into a violent spasmodic action; a convulsive cough, with dyspnœa, followed, which continued during several hours, but was finally somewhat relieved by the use of chloroform, and the administration of anodynes. The cough and dyspnœa, however, with increased expectoration, and pleuritic pains, continued for several days; and, although the patient became in the course of a week quite comfortable again, under general treatment, yet she never entirely recovered the favorable state she was in before the occurrence of the spasm. As the patient and friends were greatly opposed to any further *topical* treatment, it was never afterwards employed. The pulmonary symptoms increased, the disease progressed, as usual in such cases, and the patient died on the 10th of October, about two months after the last employment of the tube.

Remarks.—The above was a well-marked instance of tubercular disease of the lungs, following a long-continued case of folliculitis; one of those cases, in short, a great number of which in their early stage, in the hands of other practitioners, as well as in my own, have been, and are, successfully treated by topical medication, conjoined with general remedies; and although a *cure* in this case could not, probably, have been effected, yet, from the favorable progress made before the oper-

ation on the 26th, I am confident in the belief that the life of the patient would have been prolonged by the treatment, if it had not been for this untoward occurrence.

A case, similar to the one I have related, came under the observation of my assistant, Dr. Richards. Not having been present when the operation was performed by Dr. R., I take his account of the case.

The patient, Mr. D. M., had been long under treatment for obstinate chronic bronchitis. Topical medication, by means of the tube and sponge-probang, had been repeatedly employed and the patient had been greatly benefitted by the treatment. Mr. M. is the same patient whose case is mentioned by the Committee of the Academy of Medicine in their report, on Bronchial Injections. His case is No. 30; and the Commission thus speak of the success of the operation, as then performed in their presence; "The tube," say the Committee, "was passed without much strangling; the air was freely expelled through the tube. An injection of two or three drachms of a solution of the nitrate of silver, of the strength of thirty or forty grains to the ounce, was then thrown in.—All present were satisfied that the experiment was successful." In this instance, as the report affirms, no irritation followed the operation, nor had any irritation attended any previous operations. But on a subsequent occasion, namely, on the 20th of May, 1856, he called to have this tubing operation repeated. Dr. Richards, being in attendance that morning, introduced the tube in the same manner as it had been done both by Dr. R. and myself, on many former occasions. At this time, however, a spasm, from some cause, was immediately induced; Dr. R. did not withdraw the instrument, but proceeded to inject, as at other times. By the time the operation was finished, the muscles of the throat and chest were violently convulsed, and this was followed by a suffocative cough and profuse expectoration. This irritation, increased cough, and expectoration lasted during several days; but it finally subsided, and the patient ultimately regained a good degree of health.

I have before stated that Prof. Bennett has employed bron-

chial injections in the treatment of pulmonic diseases. In the *Edinburgh Medical Journal*, and in his work, recently published, on "Clinical Medicine," he has reported some most interesting cases, in which this method of treatment was employed.

Since the publication of the above work, by Prof. Bennett, I have been favored with a letter from him, on the subject of bronchial injections, in which, among other things, he alludes to the occurrence of an accident, in his own practice, similar to those whose history has been given. He writes: "A gentleman, in the last stage of phthisis, with cavities in both lungs, and tubercles very generally distributed among them, after long treatment with the probang, allowed me to inject the bronchi. I did so, and he was immediately seized with the most violent dyspnœa. I thought he would have died in my study. It continued several days, and then gradually declined. After five weeks confinement to bed, he was restored to the same condition he was in formerly. This was six months ago. My opinion is, that he made a too violent effort to hold his breath and retain the catheter, and either ruptured an emphysematus portion of the lung, or caused a small abscess to break, as the operation was followed by abundant purulent expectoration."

In a letter which I received during the present year, from the distinguished professor of Clinical Medicine in Paris, M. Trousseau, he, among other interesting statements made on topical medication, mentions the occurrence of an accident in his practice, from the use of nitrate of silver solution, under circumstances different from any that have come under my own observation. He remarks: "I often cauterize the interior of the larynx. I sometimes, but rarely, use a hollow caustic holder like that of Dr. Loiseau's, and I have also injected into the trachea solutions of nitrate of silver and sulphate of copper. This practice, in my hands, has never been attended by any danger, and I have never heard that Dr. Loiseau has had any accident to deplore. * * * I have introduced caustic solutions very frequently into the trachea and bronchial tubes, after tracheotomy, in case of croup. For six years I

never operated for tracheotomy without injecting caustic solution." "Once this practice," continues M. Trosseau, "in my hands, caused the immediate death of a child. The case was as follows: I had operated on a child two and a half years old; he breathed very well. I dropped into the trachea ten or fifteen drops of a solution of nitrate of silver; a coagulation of thickened mucus, which was in the principal bronchi, immediately followed, and the child died, strangled, in less than a minute." "An accident of this kind," he adds, "can never happen if a sponge, moderately wet with the caustic solution, be used; and with the instrument which you use, a model of which you have sent to me, I cannot see how an accident can occur to the lungs."

It would also seem impossible that this accident, to which Prof. Trosseau alludes, could have resulted from the cause to which he refers it. He had used it frequently before in the same manner, during a period of six years, without the occurrence of any such accident.

During the last winter, it will be remembered that many severe cases of membranous croup and diphtheritic inflammation occurred in some of our larger cities. This was the case particularly in Boston, Mass., in which city the physicians have reported some almost hopeless cases that were saved through the combined measures of tracheotomy, followed by repeated injections of a solution of nitrate of silver, through the opening into the trachea and bronchi. In one instance, as reported in the *Boston Medical and Surgical Journal*, in the case of a child, aged four and a half years, Dr. Gay, assist-by Drs. Bowditch and Perry, "injected through the artificial opening into the trachea, *every four hours*, about one-third of a teaspoonful of the solution of nitrate of silver, of the strength of 20 grains to the ounce of water." This treatment was continued through several successive days and nights, and resulted in the complete recovery of the patient. It would seem, therefore, that in the case reported by M. Trosseau, the patient must have died from some other cause than the one mentioned, namely: "ten or fifteen drops of a solution of nitrate of silver into the trachea."

Nor is there any need of the occurrence of any accident from the employment of catheterism of the bronchi, if proper cautions are adopted; for, with our present knowledge and experience in the use of this measure, it is one, we maintain, that may be employed with as much safety as any of our other remedial agents.

To the precautionary measures necessary to be adopted in topical medication I shall refer, after alluding to another danger.

When the attempt was first made to inject the trachea and bronchi, it must be remembered that there were no precedents, no recorded cases, in which this practice had been adopted, to which we could refer, for guiding us in regard to the strength of the remedies, or to the amount of medicaments that could with safety be injected; consequently, it became necessary to proceed with much caution, in the inauguration of this practice. Fortunately, those persons upon whom the attempt was first made to employ this method of treatment, were among those patients who for a long time had been under treatment for laryngeal and bronchial diseases; to whose larynges the sponge-probang had been frequently, and for a long time, applied; consequently they were particularly well prepared for the introduction of the injecting tube, and for the employment of the injections; and it was for these reasons that bronchial injections, in the first instances in which they were employed, were better borne, and were accomplished with more facility, than they have been in most instances since. At any rate, I soon found that in recent cases, I had more difficulty in effecting the introduction of the tube, and that it was necessary to employ, at first, a *very mild* solution, which could be subsequently increased in strength. The following case will illustrate one of the difficulties to which I refer:

In September, 1854, Miss H., a young lady of this city, was recommended to my care, by her friend and physician, Dr. C——, for the treatment of a bronchial affection. The ordinary signs of bronchitis were very marked. Topical applications, of the nitrate of silver solution, were made to the glottis and larynx, and the general remedies, ordinarily recom-

mended in such cases, were administered. This treatment was continued several weeks without producing any decidedly beneficial effect upon the patient. About this time I saw the patient on several occasions, in consultation with the physician who had recommended her to my care. He advised a further perseverance in the plan of treatment, but suggested the employment of catheterism of the bronchi, (an operation he had seen performed, in similar cases, several times upon my patients) if the present measures, after a further trial, should be successful. But her disease continued to resist the influence of those measures which had proved quite successful in the management of other, apparently similar, cases. On the 7th of November, therefore, the bronchial tube was, with some difficulty, introduced, and nearly a drachm of the solution injected into the bronchi. An unusual amount of irritation followed this operation.

The introduction of the tube induced a spasm of the glottis; the patient coughed severely, and complained, while she remained in my office, of pain in the larynx and bronchi.—She, however, left soon after the operation, for her house, in the upper part of the city, but did not return for any further treatment. The subsequent history of her case was obtained afterwards, from herself and her mother.

The cough and bronchial irritation continuing after her return home, the patient and her friends became alarmed, and called in their ordinary medical attendant, who, in turn, called in a consulting physician, but both concluded to do nothing, for the irritation gradually subsided, and, along with it, the alarm of the patient and her friends; and, still better, the cough and bronchial disease, which had so long and so obstinately resisted other measures, entirely disappeared, and the young lady has continued in good health, up to the present time.

Spasms of the glottis will, as I have before stated, occasionally occur, caused by the irritation of the supra-glottic space, in the introduction of the tube, although great pains may have been taken to prepare the parts by previous training. In this case, I at first attributed the spasm and subsequent cough and dyspnœa to irritation, produced at the glottic opening.—

But from some observations and experiments which I have since made, I am fully satisfied that the disturbance in this instance, and probably in the case mentioned by Dr. Bennett, as well as in some others, similarly affected, was caused by the employment, at first, of a solution of too great strength.

I have recently instituted some interesting experiments upon animals, (the cat and dog,) in order to ascertain how strong a solution of nitrate of silver can be borne, when injected into the trachea and bronchi. I experimented upon these different animals, but found the results the same, under similar circumstances, in both the cat and dog. But I will detain the College with the history of only one case.

A young dog, eight months old, weight fifty pounds, was treated by bronchial injections. His jaws were opened by an assistant; a cord being placed around his tongue, it was readily drawn out of his mouth, when the epiglottis, and the opening of the glottis, were seen without any difficulty. I passed the tube quite readily into the larynx, and carried it down eight inches, into the trachea. Here it was allowed to remain several minutes, without producing the least disturbance, while the respired air passed freely through the tube. After a time I injected a small amount of a weak solution of the nitrate of silver through the tube into the lungs of the animals; but, as he did not seem to be at all effected by this, I soon after threw in half an ounce of a solution of the strength of fifteen grains to the ounce. After being released, he commenced playing about as usual, without showing a symptom of any disturbance whatever. The next day he appeared perfectly well, and was as playful as ever. At 5 o'clock P. M. on the following day, I again introduced the tube into the dog's larynx, and conveying it down, nearly the whole length of his trachea, but not below the tracheal bifurcation, I injected into the bronchi the ounce syringe full of a strong solution of the nitrate of silver, of the strength of thirty grains to the ounce of water. This amount, in proportion to the weight of the animal, would be equivalent to three ounces of the solution of this strength to an adult. The respiration of the animal was not impeded at the time, nor did any signs of

suffocation follow immediately this operation of injecting so large an amount of fluid into the air-passages. The dog, for a time, ran about as usual. At 7 o'clock, two hours after the operation, I visited him at his kennel, and calling him out, found him with tail hanging down, eyes dull, and breathing with some difficulty, and uttering occasionally a short cough. On listening to his sides, moist, bronchial, and crepitant rales were heard throughout both lungs. He was allowed to lie down in his kennel. At 10 o'clock I went to him again, when I found that all these symptoms had greatly increased; the dyspnœa was quite difficult, and the dog was disinclined to move about. He died during the night.

I examined the lungs the next day; the bronchial mucous membrane was highly inflamed. Both lungs were inflamed, and gorged with blood; and bloody and frothy mucus blocked up the bronchial tubes. The animal died, therefore, of inflammation of the lungs and bronchi, superinduced by the large and strong injection of a solution of nitrate of silver into the bronchi.

Remarks.—It is evident, then, that nitrate of silver may be used of that strength, and to that amount, in bronchial injections, as to prove fatal to animal life. So, also, may the too frequent use of all or of any of the potent remedies destroy life.

3d. In relation, then, to the third inquiry, "What advantages are to be derived from this method of treatment?" I reply: bronchial injections of a solution of nitrate of silver, when judiciously employed, have proved to be, and will continue, I believe, to be a valuable therapeutic means in thoracic disease.

In the commencement of this paper, I referred to the detailed report which was published by me, two or three years ago—a report containing a statistical table of one hundred and six cases of pulmonary and bronchial diseases, treated by means of catheterism of the air-passages, conjoined with appropriate general remedies. The following is the brief analysis given at the conclusion of the report of the above cases: "If we analyze the *one hundred and six cases*, reported in the

table, it will be found that *seventy-one* of the sum-total have been recorded as cases of *advanced phthisis*—cases in which tubercular cavities were recognized, in one or both lungs; and *thirty-nine* cases of *early phthisis*. Of the first division—advanced phthisis—*fourteen* have since died. *Twenty-five* were more or less improved; their lives, apparently, being prolonged by this means of medication. *Seven* only of the thirty-two cases of advanced phthisis were not benefited by the injections. Of the *thirty-nine* cases of *incipient tuberculosis*, *twelve* of this division have apparently recovered. *Five* more of this number are now, or were, at the last report, in the enjoyment of a good degree of health. These five cases were classed by my assistant, Dr. Richards, with the twelve recoveries; making *seventeen*, in all, of the thirteen cases of early tuberculosis which have apparently recovered.

"Of the remaining *twenty-two* cases, many of whom are still under treatment, *seventeen* have been greatly improved by topical medication; *three* more have been moderately benefited; while *three* only have failed to obtain any advantage from the local measures which have been adopted.

"Of the *twenty-eight* cases of bronchitis, *sixteen* have been dismissed, cured, or so much improved as to require no further treatment. All the others have been greatly benefited.*"

This method of treatment, in this class of diseases, has been continued, more or less, since the report to which I have referred was made; and such has been the amount of success which has continued to attend this plan of treatment up to the present time, I am now ready to affirm, after an experience of many years, in a field of observation unusually large, that, *if I was required to relinquish all other known therapeutic measures or topical medication in the treatment of thoracic diseases, I should choose the latter, with hygienic means alone, in preference to the entire class of remedies ordinarily employed in the treatment of these diseases.* But I shall now refer briefly to the opinion of other physicians as to the value of this mode of treatment.

* See published "Report of One Hundred and Six Cases of Pulmonary Diseases, treated by Bronchial Injections," &c., pp. 34–5.

In chronic bronchitis, in asthma, and in early tuberclosis, cauterization of the air-passages has been found to be a most valuable and efficient remedy. As I have stated, topical medication, in the treatment of thoracic diseases, has been continued in my hands since the publication of the "Report of the One Hundred and Six Cases" to which reference has been made. During this period of three or four years, large numbers of patients, affected with chronic laryngeal and bronchial diseases, with asthma, and with tubercular phthisis, have been treated, and the success which has continued to attend this practice has served to increase greatly my confidence in this measure, as a therapeutic agent. I shall, however, omit a detail of any of these cases coming under my own observation, and only refer briefly to the opinion of other physicians on the value of this mode of treatment.

At a meeting of the French Academy of Medicine, subsequent to the reading of M. Loiseau's paper on catheterism of the Larynx in Disease, a very favorable report on the management of some of the diseases of the air-passages by this method was adopted; the commission making the report declaring that catheterism of the air-passages in the treatment of diphtheritic inflammation and other kindred affections, is not only practicable, but is of great utility.* "I believe this method," said M. Velpeau, "to be a good one. While diphtheritis is at the opening of the air-passages, it is curable, and M. Loiseau has ascertained that it is not difficult to carry medications into the larynx."†

"As a therapeutic means," says the editor of the *Gazette Medicale de Paris*, "it merits a more serious attention. What is the relation of cauterization to croup? It is a powerful, energetic means, *the only one, which, up to this time, has really succeeded.* When the disease is limited to the upper part of the air-passages, we cauterize, and all practitioners agree that this means is truly of great benefit. What is laryngeal cauterization other than carrying beyond the limits of ordinary cauterization, a remedy recognized as good, efficacious, not only against the essence of the disease itself, but

* See Union Medicale, Aug., 1857. † Ibid.

also against the pathological secretion?" And the learned editor of the *Gazette Hebdomadaire*, after calling attention to what had been done in America in the treatment of croup by cauterization, adds: "These experiments should be repeated by us, with that attention which the authority and the honorable position of our American confreres command. M. Loiseau, anticipated, as it is seen, in every particular, has given us, however, a useful example, and his merit will still be great if he succeeds in introducing into use a practice worthy of more attention than it has yet received."*

During the last year, the *Gaz. Hebdomadaire*, and other French journals, have contained the histories of several severe cases of diphtheria, which, under the care of Loiseau, Trosseau, Gros, and other physicians of Paris, were successfully treated, by catheterism of the larynx. In alluding to one case reported by M. Gros, where the diphtheritic inflammation had extended deeply into the air-tubes, threatening immediate suffocation, but which was permanently cured by injections into the larynx, the editor of the *Gaz. Hebdomadaire* says:

"This fact has an important practical signification, and speaks loudly in favor of the advantages which may be derived from catheterism of the air-passages, and from topical applications, carried by this measure directly into the larynx and trachea."†

Indeed, M. Trosseau has quite recently expressed, before the French Academy, his want of confidence in all the ordinary violent remedies in the treatment of croup, such as severe vomiting, blisters, leeches, etc., declaring his belief that we must place our main dependence upon direct catheterism, or cauterization of the air passages, followed, if this measure is unsuccessful, by tracheotomy.

In Dr. Hughes Bennett's work, to which I have already alluded, he has devoted a chapter to the consideration of "Injections of the Bronchi in Pulmonary diseases." He remarks, "Whilst tuberculosis is at first a constitutional disease, its localization in any part reacts more or less on the general

* Ut supra, Aug,. 1857. † Gazette Hebdomadaire, Sept., 1859, p. 660.

health; and the opinion I have long entertained, that any means which could enable the physician to act directly on the tissue of the lung or inflamed bronchi, would assist his efforts at cure, at once led me to take a favorable view of this new mode of treatment. The nitrate of silver ought to act as beneficially on the mucous membrane of the trachea and bronchi as on that of any other hollow viscus, and we have seen previously that the remedy may be applied to the tracheal mucous membrane, by means of an artificial opening, not only without injury, but with decided benefit." He further adds, "Without entering into minute particulars, I have only to say that I have confirmed the statements made by Dr. Horace Green."

The cases in which Dr. Bennett employed this method of treatment, as he states in his work, were, patients "affected with phthisis in various stages, with laryngitis, and in chronic bronchitis, with severe paroxysms of asthma. In other cases in which I attempted to pass the tube, it was found to be impossible; in some because the epiglottis could not be fairly exposed, and in others on account of the irritability of the fauces, and too ready excitation of cough from pressure of the spatula."*

This, then, is only a part of what has been done in France, Germany, England, and Scotland, in the employment of topical medication in disease. In some of these countries, far more extensive observations on this mode of treatment have been made than in our own country; certainly, more than in our own city! But I shall not stop here to compare the careful inquiries, the scientific observations made and the frankness and candor exhibited, by the profession of other countries, on this subject; with the course pursued by many of my "American confreres;" nor, especially, with the *non-committalism* of the New York Academy of Medicine, before which body this matter of catheterism was first brought; and whose report on this subject has slept for five years, unmolested, on their table!

If necessary, I could give the opinion of many other practi-

* Clinical Lectures, &c., p. 609.

tioners, in Europe and America, who have tested topical medication, in the treatment of diseases of the air-passages, and who profess to have derived signal advantage from this therapeutical measure.

I will only refer to some favorable testimony from some parts of our own country. During the last year, as it was remarked on a former page, croup and diphtheria were more than ordinarily prevalent in some of our larger cities. This was the case particularly in Boston; and here, many very severe cases of diphtheria occurred, and some almost hopeless cases were saved by cauterizations of the larynx; and others, by tracheotomy; followed by repeated injections of a solution of nitrate of silver, through the opening, into the trachea and bronchi.

In a report of some most interesting cases of the disease, read before the Boston Society for "Medical Improvement," and subsequently published in the *Boston Med. and Sur. Journal*, Dr. Gay says, "After tracheotomy, and the insertion of the tube, the injection of a solution of nit. argent. through the tube, into the trachea and bronchi, is our strongest dependence and most of the other measures are mere auxiliaries." "In seven cases decided membranous croup," says Dr. Gay, "in which these combined measures were employed, and in which the membrane was expelled through the tube, there have been *five recoveries*, and *two deaths*." Many other severe cases were successfully treated by cauterizations of the larynx and trachea, employed before the operation of tracheotomy became imperative.

I shall close this paper by describing the method I employ in practicing catheterism of the bronchi. I have received letters from many medical men, requesting me to give them an account of the manner of performing the operation, and a description of the instruments employed. As it has been, and is, impossible for me to comply with all these individual requests, I cannot do better than to reproduce the directions I sent to Prof. J. Hughes Bennett, who several years ago wrote to me, desiring me to send him a description of the operation, and a set of the instruments I employed. My re-

ply is published at length in Prof. Bennett's recent volume of "Clinical Lectures," from which I shall extract.

"I would, with pleasure, send you the instruments I employ, but they are simple, and may be obtained at any surgical instrument maker's shop. They consist of an ordinary flexible, or gum catheter, and a small silver, or glass syringe.—The catheter is Hutchings' gum-elastic catheter, (No. 11 or 12) which is 12½ inches in length; and, as the distance from the incisor teeth to the tracheal bifurcation is, ordinarily, in the adult, about eight inches; if this instrument is introduced so as to leave only two inches of the catheter projecting from the mouth, its lower extremity must, of course, (if it enter the trachea) reach into one or the other of its divisions. I first prepare my patients by making applications, with the sponge probang, and nitrate of silver solution, for a period of one or two weeks, to the opening of the glottis and the larynx, until the sensibility of the parts is greatly diminished. Then, having the tube slightly bent, I dip the instrument in cold water, (which serves to stiffen it for a moment, and obviates the necessity of using a wire,) and with the patient's head thrown well back, and the tongue depressed, I place the bent extremity of the instrument on the laryngeal face of the epiglottis, and gliding it quickly through the rima glottidis, carry it down to, or below, the bifurcation, as the case may require. It is necessary that the patient continue to respire, and the instrument is most readily passed during the act of inspiration. The tube being introduced, the point of the syringe is inserted into its opening, and the solution injected. This latter part of the operation must be done as quickly as possible, or a spasm of the glottis is likely to occur. Indeed, if the natural sensibility of the aperture of the glottis is not well subdued by previous applications of the nitrate of silver solution, or if the tube, in its introduction, touches roughly the border or lips of the glottis, a spasm of the glottis is certain to follow, which will arrest the further progress of the operation. The epiglottis, which is nearly insensible, (and this you may prove on any person, by thrusting two fingers over the base of the tongue, and touching, or even scratching with the nail, this

cartilage,) should be our guide in performing the operation. The strength of the solution for injecting, is from 10 to 25 grains to the ounce of water. Commencing with 10 or 15 grains to the ounce, its strength is subsequently increased, and the amount I now employ is from ½ to 1½ drachms of this solution."*

Allow me further to add, that, latterly, in commencing the injections, I have used a solution still weaker than above denoted. When my patients are prepared for catheterism, by repeated cauterizations of the opening of the glottis and larynx, to reduce the normal sensitiveness of the parts, the tube is then introduced, and a drachm of solution of nitrate of argent., of the strength of from 5 to 10 grains to the ounce of water, is injected through the trachea. Afterwards, the solution may be gradually increased in power; but, at the present day, I seldom employ the remedy, in bronchial injections, of a strength above 20 grains of the salt to an ounce of water.

Should a spasm of the glottis occur, as I have before remarked in this paper, on the insertion of the tube into larynx, the instrument should be promptly withdrawn, and no further attempt be made to proceed with the operation, until the irritation has fully subsided. It is necessary that the applications of the sponge-probang be continued in the intervals of the employment of the tube.

In cases of bronchitis, in asthma, and in early phthisis pulmonalis, even, the use of injections into the bronchi, once or twice a week, operate to diminish the cough, expectoration and dyspnœa, with great certainty, and very many cases of these diseases have recovered under local treatment, after other measures had fail.—*Amer. Med. Monthly.*

M. Cloquet has been appointed President of the Academy of Medicine of Paris.

Baillière of Paris, the well known medical publisher, died recently.

* "Clinical Lectures on Medicine," pp. 608-9

Sulphurous Vapor Baths in Chronic Rheumatism. By G. L. Purdy, M. D.

[From the Cleveland Medical Gazette.]

All practitioners of much experience, are aware of the obstinancy of this affection—chronic Rheumatism, how slow it is to yield to remedies, and how often it entirely defies the whole array of Therapeutics. And under these circumstances, any means that tend towards its alleviation or cure ought to be promulgated among the profession, and used for the benefit of sufferers from this disease.

The treatment of chronic rheumatism by the sulphurous vapor baths, is reported by James Williams, M. D., in the *London Lancet* for August, 1858, and in the thirty-eighth number of *Braithwaite's Retrospect*, the same thing is upon record.

I shall not attempt to enter into the pathalogy of this disease, nor the *modus operandi* of the treatment, but will merely make up a short report of a case in which I used the bath as an adjuvant to other means, with a successful result, after the disease had resisted similar means, unaided by the bath.

Dr. Williams describes an apparatus for the administration of the bath, but it can be used without going to all of this trouble.

I had my patient stripped to the skin, and seated on a tight bottomed chair—thickly enveloped with flannel blankets from the shoulders downwards. Place the blankets tightly around the neck, and have them fit snugly to the floor, around the patient's chair—but as far from it as you conveniently can, so there will be no danger of their taking fire from the flame of the sulphur. Now, place under the patient's chair an iron vessel containing one fourth of an ounce of sublimed sulphur of the shops, and upon the sulphur, place a small piece of red hot iron, and combustion immediately takes place. If the vapor should escape through the blankets too much, and thus annoy the patient, place more covering around him, or keep the vapor from the face with a fan.

The patient should be thus vaporized 20 or 30 minutes, or

until a very free perspiration is got up. If the sulphur burns out too soon, add some more. When the bath is discontinued have the blankets removed, and the patient well sprinkled with a half gallon of cold salt water, and thoroughly dried by brisk friction, and placed in bed, warmly covered for three hours. The bath should be used once every second or third day.

Mrs. Y., aged about 30, was attacked last March, with rheumetism of the left hip, knee and ankle joints, incapacitating her from going about, except by the aid of crutches—sometimes she could not even use these for days at a time.

From what I could learn, the disease was rather of the acute character at its commencement. She was treated for six weeks by a medical friend of a neighboring village, who subjected her to all the remedies usually applied in such cases, but with very little benefit.

She then underwent a two months' course of infinitesimal homœopathy, but received no beneficial results. The homœopathist promised a cure in two weeks.

From this time, until the 12th of last August, she went the rounds of home-made and patent medicines, the results as before—no benefit of a permanent character.

I was called to visit her for the first time, on the 12th of last August, and found her almost helpless from inability to use the left leg; the joints being quite sensitive to the touch, especially the hip joint. She was very much exhausted, and worn down from loss of sleep, and irritation. Being favorably impressed by Dr. Williams' paper on the "Sulphurous Vapor Bath," I determined to give it a trial in this case. I therefore subjected her to its influence every third day, and gave her 10 grains pulvo. gum guaiac, and 1 grain pulvo. sem cocihicum, three times a day. Under this treatment, and a succession of blisters around the hip joint, she gradually and steadily improved.

By the 25th of September, she could walk without crutches. I now changed the guaiac and colchicum, for the comp. syrup sarsaparilla and iodide potassa. This course was continued for three weeks longer, but the bath was used only once a

week since the 25th of September, and discontinued on the 15th of October, when she was well enough to do her own house-work, and discharged her hired girl. She continued the use of the sarsaparilla and iodide of potassa for three weeks longer. As she appeared well, the medicine was discontinued at this time. I frequently hear from her, and her health remains good. I attributed the chief part of her recovery to the sulphurous vapor bath, for in conversation with her first attending physician, he told me that he had given her colchicum, guaiacum, iodide potassa, and many other remedies.

I have given a very condensed account of the case, and yet I think extensive enough, to give an opportunity to see the effects of the bath in this obstinate case of chronic rheumatism.

Remarks on delivering the After-birth, in common cases. By B. C. Smith, M. D., *Webster Place, Georgia.*

[From the Oglethorpe Med. and Surg. Jour.]

Under existing arrangements in medical education there are, annually, hundreds of graduates sent out who have never enjoyed the advantages of practical clinical instructions in the department of Obstetrics; and their general and theoretical instructions have been more in reference to the measurements of the pelvis and fœtal head; the presentations and positions, and the management of difficult cases, and use of instruments, than the manner in which uncomplicated, and by far the most numerous class of cases, should be conducted.

While every student feels the importance of understanding all that he possibly can, in regard to the management of difficult cases, none should neglect to be fully posted in the management of ordinary ones. If there is a degree of deficiency in any point, let it be in that class of desperate cases

which no inexperienced student or graduate should attempt to treat alone.

Now, natural and difficult labors too, are constantly occurring, and the young physician, will possibly be called to the latter in a few instances, and certainly to the former very often. If he does not understand the management of a natural case, he cannot understand that of a difficult one. A student may have acquired all the knowledge that can be afforded him by books, lectures and manakins, yet he should not attempt to "turn" or use instruments, until he has sufficient experience to render familiar to him the different structures of the female re-productive organs.

The mere tyro will not be expected to conduct a difficult labor; much less to require assistance in the management of the most common cases.

A great majority of the young physicians, who have not realized the advantage of an obstetric clinic, or the practical teaching of a good preceptor, will be called on to take the whole responsibility in the management of the first case of labor that they ever witnessed; and on making his first examination, per vaginum, the student will only discover that the stereotype impressions made on his mind, through organs of vision, by plates and other artificial preparations, as well as by verbal descriptions, must all be replaced by his becoming acquainted with the vital structures through the sense of touch alone.

But, to come to the point: however much may be known of theory, or however little of practice, the fœtus, in natural and uncomplicated cases, will be expelled, but in a great majority of these cases, the placent will lie detached, and lying at the mouth of the womb, perhaps grasped in it and held firmly by its contractions, or sometimes it may only be retained in the vagina.

Now, presuming that you are a young accoucheur, attending your first case, that the fœtus has been expelled; the womb found to contract; mucus cleared from the child's mouth; and the cord properly ligated and clipped. You will now wait fifteen, twenty, thirty or sixty minutes, according to the favor-

ite practice of your worthy preceptor, or the teachings of some special professor; and then the after-birth not having been expelled, you will proceed by wiping the cord with a dry cloth, close up to the vulva, as nearly dry as you can; then continuing to hold it up from the discharging fluids, dry the fingers of the left hand, (or right if more convenient,) with which take hold of the cord by giving the dried portion a turn or two around the middle finger, and grasping the portion leading to the placenta firmly between the end of the thumb and the palmer side of the index finger; you will put it upon the stretch, but not attempt to pull away the placenta, as you have probably been taught to do, for it is very unphilosophical to attempt to combat atmospheric pressure, by pulling at the cord, while the os is completely covered, and the air excluded by the flat surface of the placenta; but take the tense cord as a guide for two fingers of the other hand, follow it upwards until it widens out into a slippery, yet granular or knotted feeling mass, which is the fœtal surface of the placenta, follow this surface along the most depending portion of it until the end is reached, (which may generally be done without passing the hand into the vagina,) now hook the ends of the fingers over the edge and draw it down into the os, in the same manner that you would attempt to pull a button through a button-hole, one edge foremost. When one edge is drawn fairly into the os, you may pull the cord moderately, during uterine contractions, and the after-birth will advance rapidly, for it is now presenting edgewise and will pass through the os in an elongated roll.

So soon as the most bulky portion has passed the sphincter of the vagina, you will find that it is disposed to slip out without any further effort on your part. But instead of removing it at once, you will gently press it back, while you give it several turns so as to twist the following shreds of membrane into a cord, and then bring all away together.

Now, as it is the first placenta you have seen, observe it closely; feel of every portion; mash it between the thumb and fingers; pull the cord; tear it away from the placenta, and note the degree of force required; for when you have a

case of retained placenta you will find that such observations, previously made, will be of more advantage to you than you can now imagine.

Extract from the Speech of Governor Wise, of Virginia.

We take the following extract from the speech of Governor Wise to the Medical Students at Richmond, Virginia, on the occasion of the exodus from Philadelphia.

"Here in the midst of this metropolis, is erected an institution of Virginia's own, on the very spot where God has grown the snake-root to cure the ague and fever. [Laughter and applause.] Then we have a University, a Faculty, a hospital; and will you tell me Virginia's doctors cannot, at home, in Virginia, learn to cure her diseases as well as they can by spending millions in Philadelphia for learning there, how to cure disease? I was frequently sick in Philadelphia, and have had the doctors there waiting upon me. On one of these occasions I had no less a man than the illustrious Virginian, Nathan Chapman, waiting on me. Mr. Chapman was a most eloquent orator, and as eloquent in colloquy. On one occasion I got tired of his conversation, and I said to him, "Doctor, have you no patients to attend?" Says he, "Sir," in his nasal tone, "I have killed almost all, and cured the rest." [Laughter.] Said I, "Sir, have you no lectures to write? For God's sake let me alone!" Says he, "Sir, I wrote my lectures forty years ago, and I only have now to furbish them up with a few new anecdotes." [Laughter.] "Doctor," said I, "will that do in this enlighted age?" "Yes," said he, "it is good enough to make corn-crackers for Virginia." [Loud Laughter.] There is more philosophy in this anecdote than perhaps you may now likely give to it. Those high-pretending institutions, after they get their fame up, have more pretensions about them than there is of reality in them. The institution that is young; the institution that is rising; the institution

that is to make a reputation, is the one where, if you are earnest and zealous in your search after science, you will derive most benefit. The school that is unknown and unsung to fame—there is the place to get the real waters of the true Pierian Spring."

Chronic Inversion of the Uterus. By Dr. F. Ramsbotham, *of London.*

The following case is related by Dr. Ramsbotham, of the London Obstetric Hospital. It is interesting as showing the possibility of spontaneous replacement of an inverted uterus, after it had been displaced for some months, and even after some very rough treatment:

"I was sent for on July 20th, 1839, to see a young lady of relaxed fibre and cachectic habit, who had been delivered of her first child, after a severe labor, twelve hours before, and whom I found suffering from violent forcing-pain and great hæmorrhage. She was exceedingly depressed. I detected a tumor, occupying the vagina, as large as a man's closed fist, entirely covered by a layer of coagulum. It was sensitive, though not painfully so, possessed a doughy feel, and became harder when compressed. The uterus could not be felt in the abdomen; but above the pubes there was a sensation of a most unusual void. As she had passed no urine since delivery, I relieved the bladder; and having not doubt that the tumor was the uterus inverted, I made strenuous efforts to restore it, without effect, but not without putting her to considerable pain. After sometime I desisted in despair, fearing that I should lacerate the upper part of the vagina; for the tumor had become hard while I was making these efforts, and in the same proportion, the circle of the mouth became closed around it in the form of a forcibly constricted ring. She passed a quiet night under the influence of morphia, and in the morning voided urine naturally, with some coagula. She

was confined in bed for two, and in the house for three months, with severe lumbar pains, and copious irregular hæmorrhage. From the middle of October till the end of December, she was free from flooding, but still annoyed by bearing-down pains, attended by a profuse, glairy, leucorrhœal discharge.—The hæmorrhage returned, and continued for two months, after which she was moved into the country, and I did not see her again till May 22d. She was then in such imminent danger, that, in consultation with Mr. Hamilton, at that time assistant surgeon to the London Hospital, and with her general attendant, it was agreed to remove the tumor by ligature as soon as she was recruited. It was at this time the size of a ordinary nonpariel apple, and had every characteristic of an inverted uterus.

On June 5th, with the assistance of the gentlemen above mentioned, I placed a ligature around its upper part by means of the double canula. The application gave but little pain at the moment, and the bleeding, which had been going on almost uninterruptedly, ceased immediately. In three or four hours, hours, however, a violent rigor supervened; this was followed by symptoms of intense peritoneal inflammation, and the ligature was removed twenty hours after its application. The pain and other inflammatory symptoms gradually subsided; in a few days she was able to leave her room; she menstruated on July 13th, less profusely than she had been accustomed to do, and continued regular in that respect; she regained her flesh, color, and appetite; was able to take a long walk, had no bearing down, nor difficulty in passing water; and, when I saw her in January, 1841, she told me that she enjoyed better health than she had done for many years. Nothing solid had ever passed from the vagina since the operation.

Early in the year, symptoms of pregnancy manifested themselves; and I delivered her of a six months' fœtus, on July 7th, in the same year, 1841. Since then I have also attended her with four other children. On one occasion the placenta adhered, and I had to introduce my hand to remove it. I sought for a polypus in the cavity, but there was nothing like

one. On another occasion, after the placenta had been expelled naturally, she was harassed with violent spasmodic bearing down pains, which induced me to pass my hand into the uterus; I there found the fundus and posterior part of the body protruded considerably downward and forward, there existing evidently a disposition for inversion to occur again; this, however, was obviated by the introduction of the hand."

This ought to give us additional confidence in any effort we may undertake for the purpose of remedying, by manipulation, this serious accident.—*Med. Times and Gazette, November 5th*, 1859.

Chloroform in Obstetrics. By William Pettigrew, M. D. *Western Medical and Surgical Society.*

As a general rule he deprecated its use in ordinary or natural labor for the following reasons:

1.—That the accoucheur should attend solely and strictly, to his own avocation, and that it therefore necessitates the presence of a second practitioner.

2.—The folly of occurring any risk of asphyxia or death, although such cases in the lying-in room are rare with chloroform in comparison with those in which surgical operations are performed.

3.—That under ordinary circumstances where matters are favorable and progress natural, it tends to depress the system, leaving the entre expulsion of the fœtus to the efforts of the uterus, supplied as it is by organic nerves, while the muscles of animal life which so forcibly assist its action are almost paralyzed.

4.—By its administration there is danger to both mother and child.

Cases illustrative to these objections were related; the exception to the general rule being, where the mother was of a delicate and nervous temperament, and where chloroform was administered in a very modified form, more to attract the at-

tention of the patient from her fears than to lessen the natural throes of labor. In protracted labor the author had experienced much benefit in its administration, and although the pains for the first ten minutes appeared arrested, they afterwards returned more strongly, with greater regularity, and under its use the rigidity relaxed, the mucus became more freely secreted, the countenance of the patient became less anxious, and the pulse quickened at first, beame stronger, and the child was born in a short time. Cases illustrative of the facts were then related.

The author, in his limited experience, bore out the observation of Dr. Simpson, that hæmorrhage seldom or never occurred after the use of chloroform.—*Medical Times and Gazette.*

Death of a Medical Practitioner from Chloroform.—Dr. Renwick, a medical practitioner of Alloa, Scotland, died recently under the influence of chloroform, which was administered for the purpose of undergoing an operation on an inverted toe nail. He had, some time previously, suffered from pain in the region of the heart, and it is said that his father died suddenly of the heart disease.

Nœvus cured by Creasote.—Dr. Buzalsky reports in the *Medical Zeitung*, the entire removal of a nœvus on a child's temple by penciling twice a day with creasote.

The Hospital for Nervous Diseases.—Dr. J. S. Ramskill has been appointed, in connection with Dr. Brown-Sequard, a Physician to the National Hospital for the paralyzed and epileptic.

A Suicide by Chloroform occurred lately in Liverpool. Eight ounces of the article were poured into a dish, and the individual died with his head over the vessel.

Editorial.

BOOK AND PAMPHLET NOTICES.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, M. D., Professor of Surgery in the University of Buffalo, etc., etc. Illustrated by two hundred and eighty-nine wood cuts. Philadelphia: Blanchard & Lea. 1860. Pp. 757.

The appearance of an original work on Fractures and Dislocations, marks a new era in the history of surgery in the United States; for as Dr. Hamilton remarks in his preface, the English language does not contain, at this moment, a complete treatise on these subjects. Melguigne's work on fractures, has been translated into English, and published in this country, since the commencement of Dr. Hamilton's book, but we are not aware that the second part, on dislocations, has yet been published in French. Such a work was, therefore, a *desideratum*, and this, we feel assured, will not only supply the want, but be a starting point for a more careful study of these accidents.

It is a work of great labor; embracing not only the views of leading European authors, but those of a large number of American practitioners, collected from detached and scattered sources, such as publications in Medical journals, transactions of Societies, etc. He has also brought to bear upon the subject, numerous valuable specimens in the hands of various surgeons in this country, not heretofore employed in a way to be so generally accessible, as those in public collections.

In his labors, the author has not only manifested an indus-

try worthy of praise, but an impartiality much more rare; and has shown that materials exist in this country for aiding in the solution of many difficult problems, if writers would but take the necessary pains to collect them, instead of adopting the easier and more usual method of resting satisfied with such as are furnished them by foreign writers.

The work is concise, judicious, and accurate; and adapted to the wants of the student, practitioner, and investigator, honorable to the author, and to the profession.

We would not, however, be understood as agreeing with Dr. Hamilton in all his views of practice. This could not be expected. Each surgeon has his own method of effecting any given object, which by skillful application he makes more useful than another method equally good, would be in his hands, and attributes, naturally, to the apparatus, results due to his skill. Numereus figures and descriptions of dressings, are found in this work which, although they have been proposed and recommended by eminent surgeons, are hardly used at the present day, even by their authors.

Thus, we are informed that Seutrin has so mollified his "immovable" dressings, as to make them differ but little from that with padded splints; and we doubt if Velpeau is tenacions of the "dextrine" bandage so popular with him in 1840. But our object is not to criticize, or to give an analysis of the work, which each one of our readers, in surgical practice, should possess. There are, however, a few points of special interest to us, which it may be of use to notice in detail. Among these, the perforation of bone in the treatment of ununited fracture is the most prominent. Dr. Hamilton's notice of the plan proposed by us, is perfectly fair, and contrasts most favorably with that of Prof. Gros, who not only says the perforation did not succeed with him, (he using a common trochar with which it is impossible to perform it,) but misquotes what we have published on the subject. Dr. Hamilton does not give us his own experience the treatment of ununited fracture; but we remember to have noticed some years since, a successful case, reported by him, treated by a method similar to our own. As several cases have come to our knowledge, of sur-

geons using our method, as they suppose, without success; when, in fact, they resorted to one quite different, and which in the beginning we found equally to fail; and as some like Dr. Gross have supposed that we claimed always to effect a cure, and more particularly in reply to numerous letters and applications on the subject, we repeat here what we have already published, of the results of our observations and operations, together with some additional facts necessary for their full elucidation.

We have treated, for the purpose of obtaining union, at the present date, twenty-one cases of ununited fracture.

Of these, two were treated by fixing the ends of the ends of the bones together by pieces of wire. Both were of the femur, and succeeded, but with symptoms quite severe.

Since adopting the practice of subcutaneous perforation, we have treated nineteen cases, as follows:

Humurs, ...4.	Ulna, ...3.
Femur, ...5.	Tibia, ...5.
Radius, ...1.	Lower Jaw, ...1.

All these, except two, have been already published. One left while under treatment, and in a fair way of recovery, to place himself under the care of another surgeon, who employed the seton without success. Once it failed, as did also the the seton and resection, this was cured near three years after, and recently by the use of metallic wire through the ends of the bone. Thy rest recovered without serious accident. Two had small abscess at the point of perforation, one had slight erysipelas. This was the case alluded to as not succeeding, and the erysipelas was much more mild than that which followed the use of the resection.

This is not all our experience in the treatment of ununited fracture. Several cases of delayed union, of from twelve to sixteen weeks standing, have been treated successfully without operation. These were cases in which there was already some tendency to union. Where there is no tendency to union, after double the time ordinarily required, I resort to perforation.

In two cases of ununited fracture, I have performed ampu-

tation. One was a compound fracture of the humerus, with paralysis of the member of eighteen months standing; the other, a fracture of the tibia of eleven years standing, and much deformity, and where sloughing had taken place to such an extent from erysipelas, that during the whole of this time, cicatrization had never been completed.

In addition to these cases, we have seen and examined several ununited fractures, which we have not treated at all; some, because treatment was not desired; others, because the fracture was of ancient date, and the member considerably useful; and two, because the state of health of the subjects was not such as to admit of any operation being performed with safety.

Of the cases which were not submitted to treatment, several had already been treated by the seton without success.—One cured by boring, had also been previously treated in the same manner; and in one, we resorted to the seton after perforation had failed, as above stated. It did not succeed in any of these cases. We have not had occasion to see the treatment by seton result favorably in a single instance. We do not from this fact, reject the seton absolutely. In most of the false joints we have been able to acquire a knowledge of, on which the seton was used, it has been resorted to with so little discrimination of cases, and so little knowledge of its action, used too small or too large, or for too short a time, that they could not by any means be regarded as fair tests of its value when properly resorted to. In but one, was it used according to the directions of its author, who retained it over four months before union was completed, and twelve weeks before it commenced to take place. In the case to which we now allude, the seton was kept in the arm eleven months without success.

Dr. Hamilton's enumeration of the causes of want of union is very brief and does not put the surgeon sufficiently upon his guard against some of them—such as transportation of the patient from place to place; the application of cold or evaporating lotions, etc. These, according to our observation, are constantly followed by some delay of union.

Of the method of remedying deformities of bones, after fracture, by subcutaneous division, some examples of which, are familiar to our readers, Dr. H. does not speak; no doubt from not having noticed reports of them.

On the subject of fractures of the neck of the femur within the capsule, our author adopts the views, very nearly, of Sir Astley Cooper, and reads a lecture to the professors of the Royal College of Surgeons, London, for their want of justice towards Sir Astley. Having had occasion to examine the collection of Cooper, now in the museum of the college, and to hear and see both sides, it seems to us that the Doctor might very well have omitted the little moral lesson on that point.

On the subject of reduction of dislocations of the hip, the remarks of Dr. H. are very valuable. He quotes five instances in which the femur was fractured during efforts at reduction by extension, and two when the same accident happened from manipulation.

While his conclusions are not unfavorable to manipulation, he expresses himself with reserve concerning it. We do not by any means share his doubts of the permanent value of this method of treatment; nor do we expect that it is destined to supercede the use of extension with the pulleys. By further experience, and more careful studies on the *cadaver*, the two methods may be so combined as to render mutual service and greatly mitigate the severity of these formidable accidents.

With a recommendation to such as desire a knowledge of the subject, to "buy the book," we close this notice, proposing to return to some points of its practice and pathology, as occasion may present.

Contributions to Operative Surgery and Surgical Pathology. By J. M. Carnochau, Professor of Surgery in the New York Medical College, etc. No. Three. Philadelphia: Lindsay & Blakeston.

This is the continuation of a work unequalled among the original medical publications of this country, for the elegance

and luxury of the "getting up." It is of quarto form, on fine paper, with large type, and illustrated by tinted lithographs of excellent quality.

Professor Carnochau is fortunate in being able to put his "contributions" to surgery in a form so attractive and so permanent. The present numbers contains three papers on congenital dislocations of the femur, and one on restoration of the entire upper lip.

The work is published in numbers, which appear quarterly, at seventy-five cents each. The entire work to be completed in ten numbers.

Therapeutics and Materia Medica.—A systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By Alfred Stille, M. D., late Professor of the Theory and Practice of Medicine in the medical department of Pennsylvania College; formerly physician to St. Joseph Hospital; President of the Pathological Society, and Fellow of the College of Physicians, of Philadelphia; Member of the Societe Medicale D'Observation, of Paris; Honorary Member of the Medical Society of the State of Rhode Island, etc. Philadelphia: Blanchard & Lea. Two Volumes. Pp. each, 900. 1860.

It is with no common satisfaction that we welcome this contribution of Prof. Stille, to the rapidly augmenting sum of knowledge, relating to remedial agents offered to the acceptance of the diligent student.

An accurate and available understanding of Therapeutics, is the very corner-stone, upon which every physician must rest the superstructure of successful practice; and yet, it is a subject usually deemed so little capable of embellishment, that study is too often neglected; many physicians passing through a long professional life, constantly wielding weapons of the action and power of which they are only partially informed. We think this work will do much to obviate the reluctance to

a thorough investigation of this branch of scientific study; for in the wide range of medical literature treasured in the English tongue, we shall hardly find a work written in a style more clear and simple, conveying forcibly the facts taught, and yet free from turgidity and redundancy. There is a fascination in its pages, that will insure to it a wide popularity, and attentive perusal, and a degree of usefulness not often attained through the influence of a single work.

The author has much enhanced the practical utility of his book, by passing briefly over the physical, botanical, and commercial history of medicines, and directing attention chiefly to their physiological action, and their application for the amelioration or cure of disease. He ignores hypothesis and theory, which are so alluring to many medical writers, and so liable to lead them astray, and confines himself to such facts as have been tried in the crucible of experience.

Some idea of the style of the author, and the scope and aim of the work, may be gathered by the following brief extract from its preface:

"The strictly scientific portion of the subject embraces the consideration of medicines in their physical, chemical, and physiological relations. Of these, the first and second are described so fully and accurately in works that rank among medical classics, that it seemed unnecessary to discuss them at length in a treatise whose point of view is rather at the bedside of the sick, than in the laboratory or the lecture room. On the other hand, the action of medicines upon the sound organism of man and of the lower animals, forms an indispensable key to their curative operation in disease. The more thoroughly it is known, the more intelligible must the mode become in which medicines bring about the restoration of soundness of structure and function, and the more will the isolated facts of therapeutics tend to arrange themselves in a systematic form.

"If this division of the subject is more copiously illustrated than is usual in treatises on the Materia Medica, it may perhaps the better serve to aid the sagacious reader in explaining the operation of remedies, and to suggest new occasions for

their employment. Our knowledge of the usefulness of medicines rests altogether on experience; but not upon that of any one man, however skillful, or of any age, however enlightend; their efficacy is attested by a multitude of witnesses, and is to be confirmed by time which reduces the opinions of individuals to their just value, outlives the fashions of the day, and is unmoved by the prejudices of the schools. To experience then, we must turn as the ultimate and decisive arbiter of all questions respecting the curative virtues of medicines, feeling assured that whenever the particular application of a remedy can be sustained by the testimony of the great physicians of successive ages, our employment of it possesses the highest possible sanction."

The work is in two volumes. In its mechanical execution it is every way worthy of the house by which it is issued.

Received through S. C. Griggs & Co., 39 and 41 Lake St., Chicago, Illinois.

Elemements of Medical Jurisprudence. By Theodoric Romeyn Beck, M. D., LL. D., Professor of Materia Medica in the Albany Medical College; Member of the American Philosophical Society; Honorary Member of the Medical Societies of Rhode Island and Connecticut; etc., etc., and John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicans and Surgeons of the City of New York; Corresponding Member of the Royal Academy of Medicine, of Paris; Corresponding Member of the Medical Society of London; etc., etc. Eleventh Edition. With Notes by an association of the friends of Drs. Beck. The whole revised by C. R. Gilman, M. D., Professor of Medical Jurisprudence in the College of Physicians and Surgeons, of New York. Philadelphia: J. B. Lipincott & Co. From S. C. Griggs & Co., 39 and 41 Lake Street, Chicago. 1860.

In a new edition of this work we recognize the appearance of an old and valued friend; in a new and improved dress,

enlarged by the results of the latest experience and mental effort of its author; and also by the valuable contributions, furnished by a number of friends of Dr. T. Romeyn Beck, of recognized ability, who came generously forward to perfect this new edition of his "Medical Jurisprudence," that he had well nigh completed before his death, and to place it within the reach of the medical and legal professions. If anything could add to the favor with which it is likely to be received by the public, the names of the distinguished gentlemen who have lent their supervision and aid, to amend errors if any were found, or supply deficiencies should any be discovered, would be for it a sufficient guaranty. They are as follows:— D. Tilden Brown, M. D., resident physician, Bloomingdale Lunatic Asylum; R. H. Coolidge, M. D., Assistant Surgeon U. S. A.; Austin Flint, M. D., Professor of Clinical Medicine in the New Orleans School of Medicine; B. W. McCready, M. D., Physician Bellevue Hospital; Samuel St. John, M. D., Professor of Chemistry, College of Physicians and Surgeons, New York; John Watson, M. D., President of the New York Academy of Medicine; J. P. White, M. D., Professor of Obstetrics in the University of Buffalo; John C. Dalton, Jr., M. D., Professor of Physiology in the College of Physicians and Surgeons, New York; and upon legal questions, George Shea, Esq., Counselor at Law, and the Hon. Murray Hoffman of the New York Superior Court.

Transactions of the American Medical Associations.—Volume 12, 1859.

This volume is less ponderous than those which have preceded it, without being on that account more condensed or valuable.

It is becoming apparent that the workers in the profession, do not desire to present the results of their labors to the public through these volumes of "Transactions." It is to be hoped that the division of the Association into "sections"

effected at the last meeting, may have a favorable effect on its action for the future.

It may be seen by the "book notices" of our present issue, that the past and present years have already issued a number of original medical works in this country, quite unusual, and of a character to add to the reputation of the profession.—This activity is not indicated by the volume before us nor can it be said that the papers contained in it are of such a character as greatly advance the standing of the physicians of this country.

New Medical Journal.—The *Virginia Medical Journal* makes its appearance with the new year, under the new title of the *Maryland and Virginia Medical Journal.* J. B. McCaw, M. D., and W. C. Van Bibber, M. D., editors, with a long list of able co-editors.

We cannot but applaud this evidence of a tendency to consolidation and co-operation on the part of the active and intelligent members of the profession in these two great states which, contrast with the tendency noticeable elsewhere, to isolation and subdivision.

The editors are efficient and capable, and we shall look for increased value, in a journal heretofore under its former name and direction, one of the prominent medical periodicals of the country.

In this number we have as the leading article a description of a "New Instrument for the Treatment of Fractures of the lower extremity," by Prof. N. R. Smith, a veteran in the service.

This splint is called by its inventor the "anterior splint" and is placed, as its name indicates, on the upper instead of the under side of the member, as other angular splints are. Not having used this splint, nor even seen it applied, we are not prepared to give an opinion concerning its value, but think from the description that in certain cases of compound frac-

ture, or where excoriations have occurred, it will be found a reliable resource.

In the notice of the Volume of Transactions of the American Medical Association, we find the following judicious remarks which we commend to our readers on account of their truthfulness, good sense, and their appropriateness at the present time:

"Always an earnest friend of this Association, and recognizing its conservative influence upon our profession, we have never been one of those who preferred to point out its failures, rather than to dilate upon the usefulness of its results. The warmest advocate of the Association, however, must confess, that it fails in each annual reunion to equal, much less excel, its efforts of the preceding year. Its committees have, one after another, been found wanting, until, as in the present instance, even the standing committees failed in their duty, and we have no report on the present condition of medical literature or education in the United States.

"Another ominous prognostic may be noticed in the refusal of the prize to any of the applicants; for surely there must be apathy among *forty thousand* physicians, if an essay coming up to the modern standard heretofore assumed by the Association could not have been prepared for the occasion.

"Need we add, that each returning year shews a smaller attendance of the profession upon this their national congress, and each year—most vital of all—the volume of the Transactions in interest and value.

"These facts make us disposed to think seriously upon the course to be pursued hereafter by all who wish to perpetuate this important organization, and with the hope of throwing out suggestions which may prove useful at the coming meeting, we take this opportunity to express our opinions on this question. We may reasonably expect to meet many of the leading men of the country at New Haven in June, and we anticipate that some modifications of the existing arrangements will be discussed.

"We regard the two vital defects in the present system of management to be as follows: 1st. The Association has never

been a scientific working body, but a debating society, confining itself to the discussions of constitutional and ethical questions, attempting to pull down or build up colleges, or to execute impracticable schemes of reform, and generally concluding with a grand jollification which promoted mirth, but gave not a page to the forthcoming volume."

We have in conclusion a small reclamation to make of the "Treatment of Indolent Ulcers by the Vapor of Iodine," which is in the number before us, credited to the *N. A. Med. Chic. Review*. This treatment originated in the U. S. Marine Hospital, at Chicago, under our care, and was first published in a recent number of the *Chicago Medical Journal*. Notwithstanding the high authority for taking from those who have little and giving to those who have much, we object to the application of the practice in this and similar cases.

Louisville Medical Journal, Edited by Thomas W. Colescott, M. D., Louisville, Ky: Vol. 1, No. 1.

This medical journal, edited by one already well known to the fraternity by his connection with the *Louisville Medical Journal*, made its appearance at the commencement of the new year. The number before us is well got up, both editorially and typographically, and from the names of the contributors to the present there can be no doubt of the value and interest of the future numbers. Pecuniarily we should suppose that a new journal in Louisville would not be a promising enterprise. There are already eleven medical periodicals issued in the Northwest, including those of Cincinnati, Louisville, and St. Louis, where three or four, or even one might answer the purpose of the profession, but this number only indicates the zeal and enterprise of physicians in this region, and at present that concentration which seems desirable is apparently impracticable.

The first article in the *Louisville Medical Journal* is by Prof. Goldsmith—a report of a case of traumatic aneurism

of the femoral artery, in which the common iliac artery was tied by penetrating the peritonial cavity. Death occurred on the fifth day after the operation. The cause of the fatal result, in the opinion of Prof. Goldsmith, was the "constitutional contamination produced in consequence of the absorption of decomposed blood clots."

He expresses the opinion also that the mortality which has attended the operation for the cure of large false aneurism by the so-called Hunterian operation, is much greater than that after treatment by the old method of ligature above and below the tumor, with evulsion of the blood clots.

Introductory Lectures and Addresses on Medical Subjects. Delivered chiefly before the Medical Classes of the University of Pennsylvania. By George B. Wood, M. D., LL. D., etc. Philadelphia: J. B. Lipincott & Co. 1850. Pp. 460.

The author in his preface gives the following reasons for the publication of these addresses:

"Being about to withdraw from scholastic medical teaching, the author conceives that this may be a proper occasion for publishing, in a connected form, the introductory lectures and addresses, relating to medicine, which he has at various times delivered. Most of them have been already printed separately by the several classes or societies before whom they were respectively read; but some of them now appear in print for the first time. Representing, as they do, the views and sentiments of one long devoted to the medical profession, and compelled, by the necessities of his position, to observe, investigate, and reflect upon the concerns of that profession in all its different relations, scientific, practical, ethical, and historical, they can scarcely fail to contain lessons, which may be made useful to the student and young practitioner. This consideration may, perhaps, be received as a sufficient excuse

for their publication; but the author confesses that he has also other views. He wishes to bring himself again to the memory of the many physicians, some of them now no longer young, who have listened to his instructions during their years of pupilage, and to leave with them a memento, by which, when he shall be no more personally among them, they may now and then recall him to mind, with kindly recollections of former intercourse."

These sentiments we are sure will be cordially reciprocated by the physicians of this country, whose respect, admiration, and kind feeling will follow Dr. Wood into his retirement, and to whom this volume is a timely and acceptable offering.

Rush Medical College.—The exercises of the seventeenth annual commencement of this Institution, were held on the evening of the fifteenth of February. Professor Brainard gave the valedictory address. The number of students in attendance during the course has been something over one hundred; being more than the Institution has averaged in former years; and a more worthy and intelligent class, or one whose members have devoted themselves with greater assiduity to the objects that drew them together, has never before convened within its walls. The course in every respect, has been as useful and quite as satisfactory as that of any previous year.

The whole number of matriculants of the school, up to this time is seventeen hundred, and of graduates, five hundred.—The number of graduates of the class of 1859–60, was thirty-six, whose names and subjects of theses, will appear in the next number of the *Journal*.

National Society of Surgery.—We have noticed that the "Society of Surgery, of Paris," established many years since, has recently been taken under the patronage of the French government, as an association of "public utility."

The society at its origin, had to contend with some difficulties owing to prejudices and jealousies; but it has fairly earned its reputation, and may now be regarded in the light of successor to the old French Academy of Surgery, whose action exerted so great and favorable an influence on the progress of the art, and whose "memoirs" are still so often quoted.

In view of the success of the "Society of Surgery, of Paris," the thought naturally occurs, why would not a similar association, composed of hospital surgeons, professors, and others interested in this branch, be advantageous in this country. It might meet like the physicians of the lunatic asylums, quietly, confine its labors to matters of a purely scientific nature, and be made agreeable as well as useful to its members.

To Subscribers.—Correspondents and those sending us their names as subscribers for the *Journal*, will save us much trouble, and insure to themselves prompt attention to any requests contained in their letters, by giving their address in full. So many towns in different States have the same name, that when the name of the State is omitted, we are often entirely at a loss where to mail the *Journal*, or direct answers to letters.

Any subscribers who do not receive the *Journal* regularly, will confer a favor by giving us immediate notice of that fact and if the fault rests with us, it will at once be corrected.

State Medical Society.—The undersigned, the chairman of the Committee of Surgery respectfully requests any member of the profession having knowledge of interesting facts relating to surgical subjects, to communicate the same to him before May 1, 1860. D. BRAINARD.

☞ The annual meeting of the Illinois State Med. Society, for 1860, will take place at Paris, Edgar Co., on the second Tuesday in May.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. APRIL, 1860. NO. 4.

Original Communications.

ARTICLE 1.

STRANGULATED HERNIA, TREATED BY OPIUM.

READ BEFORE McLEAN COUNTY MEDICAL SOCIETY, OCTOBER 1857, BY S. W. NOBLE, M. D., AND PUBLISHED BY RESOLUTION OF THE SOCIETY.

GENTLEMEN: When I received an appointment at your hands to read an essay on this occasion, I determined to write on some subject relating particularly to the practice of our profession. And while contemplating in my own mind what subject to select for discussion, I was called to treat a case of Strangulated Hernia, which reminded me of some experience I have had in the treatment of that disease which I have long thought of presenting to the consideration of this Society.

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I hope, therefore, no apology will be necessary for departing from the course of my predecessors on such occasions, and presenting a simple relation of facts, as I have observed them, in the treatment of a few cases of Strangulated Hernia. It is not expected that we will go into a full description of the nature and causes of Hernia in a paper of this kind; neither is it necessary, for the disease is so plainly described in every work on surgery, that it is expected of every practitioner that

he will recognize the presence of a Hernia so soon as it becomes strangulated.

What I propose, then, for discussion to-day, is the indications of cure which present themselves in the treatment of a case of Strangulated Hernia, and the means by which these indications may be fulfilled.

The first and principal indication of cure is to relieve the stricture and return the Hernia, which is to be accomplished, if possible, by taxis, as directed in the books. But if the taxis, aided by reliable auxillaries, fail, I believe that all authors, so far as I have read, lay it down as a rule, and urge the importance of the practice, that as soon as the surgeon is satisfied that the strangulation cannot be relieved by the taxis, he is bound to operate, and that without delay, as the only chance of relief. And the great majority of experienced surgeons agree that in regard to this operation, error is more frequently on the side of delay than of precipitancy.

"Two circumstances," says authority, "demand its instant performance: a conviction that by no other means than the edge of the knife, directly applied, can the abdominal outlet be so enlarged as to relieve the constriction and admit of replacement; also a conviction that already inflammatory action has advanced so far that either ulceration or sloughing is inevitable in the protruding parts. In the one case they operate to relieve the stricture—effect replacement hoping to arrest inflammation. In the other they operate to relieve the stricture, and leave the hernia unreduced, and prevent fatal extravisation of intestinal contents within the abdomen."

In the face of the above, and long established convictions, a man would be considered reckless indeed, who would for one moment hesitate to operate, or would try other and milder means to produce the same effect. Were it not for the old maxim: "That the true science of surgery consists in relieving surgical cases without the use of the knife," I should not presume to offer any objections to knifing a hernia; neither will I attempt to offer a substitute for the knife in all cases of strangulation. But while the watchword of the age is progress, I don't think it impossible for us to make some change, at

least, if not improvement, in this long established course of practice.

And when we take into consideration the mortality attending the operation, which is admitted on all hands to be great, it is not to be wondered at that we should hail with pleasure any means calculated to reduce the amount of mortality from that cause. This is particularly interesting when we reflect for a moment on the frequency of the accident or disease. I have seen it estimated by some writer in a late journal, that one out of every fourteen persons in the community have a hernia. This proportion, when viewed in connection with the universality of the disease, would show that a larger number of the human family are affected with it than with any other disease that flesh is heir to.

The common disorders of life are, for the most part, limited to particular portions of the earth's surface; some limited to particular seasons, some to particular races, some to particular classes of the race, and some to certain periods of life; but hernia is not subject to any of these limitations. The American and the Asiatic—the infant and the octogenarian—the citizen and the backwoodsman, are all alike subject to it. It may be said of the unfortunate class so affected, that they stand in jeopardy every hour; they know not but the next step or cough, or slight irregularity will induce strangulation that shall prove fatal or otherwise, according as the physician in attendance may happen to be skillful or otherwise.

The treatment that we propose for the relief of Strangulated Hernia is full and oft repeated doses of opium until complete narcosis is produced. When given in this way opium will evidently produce a more complete relaxation of the muscular system than any other known remedy. It possesses this advantage over most other relaxing medicines: you can manipulate without giving pain. But, on the other hand, if you relax the system perfectly with tartar emetic or tobacco and apply the taxis, you cause pain in the parts which excite contraction in the muscles implicated in the hernia, which are the very ones you wish to relax. The same objection applies to chloroform, with this slight exception: the patient is not

conscious of the pain, and you have not the influence of volition to contend with.

Opium, likewise, when given in large doses; say from 3 to 5 grains to an adult; arrests vomiting, which is one of the most unpleasant symptoms, quiets the irritability of the system, and effectually prevents inflammation and mortification in the strangulated portion of the bowel. When the patient is thoroughly and permanently under the influence of opium, if the stricture is not relieved and the bowel returned spontaneously, it may be readily accomplished by a renewal of the taxis. At least that has been my experience in these cases.

I have not arrived at these conclusions through the channel of any fine spun theory, but have given this subject much thought and study, and if, after hearing the result of the cases treated in this way, which I am now going to report, the members present are satisfied that I am in error in recommending this course, or that the practice would be unsafe and empirical, and will show satisfactory grounds on which they base their convictions, I will agree, in the next case of Strangulated Hernia that I treat, to send for a surgeon, early. But while I am in the same state of mind I am to-day, I shall never resort to the knife to relieve stricture in those cases.

My thoughts were first directed to this subject strictly by accident, though I have since seen in some of the journals (that I have been unable to lay my hand on while preparing this paper) that an English surgeon recommended the opium treatment in cases of irreduceable hernia, to fill the same indications.

I will now give a report of the first case treated in this way, which will fully explain why I first ventured to try the opium treatment, while the result of the case will be ample excuse for trying it in the next case.

Called, March 7th, 1850, at 4 P. M., to see H. B., (known to most of you,) whose hernia had become strangulated about noon of the same day, which caused severe pain in the bowels, constant retching and vomiting of stercoraceous matter—in fact, all the symptoms of Strangulated Hernia in

their aggravated form, which had not been relieved at all by an irregular, who had been treating him for the two hours previous to my visit, as the "most desperate case of cholera morbus he had ever witnessed in a thirty years' practice." I placed the patient in position, and applied gentle taxis for a few minutes without relief. I then gave nauseating medicines to relax the muscular system and applied cold to the tumor, with no better effect.

Being fresh from the schools and fully impressed with the importance of an early operation, I very candidly informed the patient and his family that there was no hope of relief without an operation, and urged the propriety of its immediate performance, after fully explaining the danger attending the operation.

The old gentleman readily consented to submit to whatever course I thought best, but was inclined to think I was too young to use the knife with safety and proposed sending to Bloomington for an old physician. I expostulated with him for awhile, giving it as my opinion that, owing to the condition of the roads, which were almost impassible at that hour of the night, it would be too late for council to be of any avail in his case before he could procure it. Seeing, however, that he was determided in his course, a messenger was sent in haste for Dr. Thomas, who was at that time supposed to be the oldest physician in Bloomington. The night being unpleasant, Dr. Thomas refused to turn out, but told the messenger to hurry home and tell me to give the patient a big dose of morphine. By the way, we would here remark that we have since learned, although we did not know it at the time, that the Dr. intended his morphine as a curative instead of a palliative. That he has treated hernia in this way. The messenger being satisfied that there would have to be an operation performed, was not willing to return without council, so he called on Drs. Colburn & Rogers (our venerable President) who were soon enlisted in the spirit of the case and gathered up their knives, a bottle of ether and a copy of Gibbons' Surgery, and were at the seat of action by 2 o'clock A. M., when the same course of manipulation was

again gone through with, after relaxing the system thoroughly with an injection of tobacco, without being able to reduce the hernia. I had given a pill of opium when the messenger started, which had quieted the irritability of the stomach for a time, but the effect had now entirely worn off, and the symptoms continued severe, with a decided increase of pain in the tumor.

The patient and friends were again assured that there was no hope of relief without an operation, which was again explained to him, and the dangers frankly admitted. Consent to an operation was given.

Day was dawning, and as we were all tired from our night's exercises, we agreed to take breakfast, which was nearly ready, and arrange matters for operating as soon as it was light. After breakfast we cut our adhesive strips; threaded our needles; constructed an operating table; got the patient on it, and partly under the influence of ether. I had the tumor in one hand and the knife in the other, just ready to distinguish myself as a surgeon, when the patient cries, "Hold! I fear I may die, and should like to see my wife once more." We tried in vain to persuade him out of this notion, but he plead so strong we finally agreed he might have a parting word with her. Now it is to be regretted that these old people did not live very happily together, hence it is not to be wondered that when the old lady was ushered into his presence she did not show signs of the most heartfelt sorrow at the prospect of being so soon left a widow. Be this as it may, when he saw her, says he: "Stop! take away your knife; I will die and be out of her way." With this he crawled from the table, and re-arranged his bed, and all we could say or do we were unable to persuade him back to the table. We plead with him as we would for his life, believing as we did at the time, there was no salvation for him without the knife. We likewise thought there was a strong probabiliy of saving him by an operation. Finally we gave it up. He said that he wished to die, and all he wanted of us was to give him something to die easy on.

After a very grave consultation, it was agreed to give him

morphine enough to relieve him of all suffering this side of the grave. We gave a large dose, something over a grain. We then took a very feeling farewell of our old friend, and Dr. Rogers administered what spiritual consolation he could under the circumstances, and left for our several homes. He took his morphine, turned over and went calmly to sleep. In the evening, about 5 o'clock, I was passing the house, and seeing no bedstead sitting out, or other signs of a funeral, I ventured in to see how he was doing. I found him lying on his back, presenting more the appearance of a cadaver than any thing else, breathing about eight times per minute, pulse forty, full and regular, skin covered with a cold, clammy sweat, muscular system perfectly relaxed. I thought from appearances he would die, and that soon, from the effects of the morphine, if from nothing else. But I concluded that I would again try to reduce the hernia, when, to my utter astonishment, there was no obstacle at all in the way of replacing the bowel. I recommended the cold douche and strong coffee, to relieve the system from the effects of the morphine, but still thought he must die sooner or later from gangrene, according to the books, judging from the length of time the hernia had been strangulated, so I did not venture to call upon him again for two days, when I found him sitting up quite comfortable, and very much inclined to laugh at the uncertainty of human prognostications.

He convalesced rapidly, and lived to give his family and the county authorities no little trouble.

Case II.—The next case of hernia that I saw was in 1852, in a boy 2½ years old. Had been troubled with a scrotal hernia for six months. The patient was much reduced by a protracted attack of ague. His hernia became strangulated and was treated three hours as a cholic; but owing to the severity of the symptoms, and the fact of his throwing up fœces, the parents became alarmed, and I was called in some four hours from the onset. I thought it was an unfavorable case for an operation; besides, by this time I had myself pretty well persuaded that the opium treatment was safe and reliable. So I concluded, after an ineffectual effort to replace

the bowel by taxis, to give the opium a fair trial in this case. Accordingly I prescribed opii. gr. 1, every two hours, until he was thoroughly narcotized. Being fatigued, I laid down with directions for them to call me as soon as he slept soundly and could be moved about without waking. His stomach retained the medicine, and I was not called until after he had taken the third powder, when, to my surprise, on examination, I found the hernia had entirely disappeared. Patient slept till morning, when his bowels were moved by enema. Quinine was prescribed for his ague, and a truss supplied for the hernia, but the ring was so sore from our manipulations that he could not wear the truss. Strange to say, the bowel has never descended since, and to all appearance the hernia is radically cured, though we do not attribute the radical part of the cure to the opium.

Case III.—Though not successful, served to convince me more fully of the importance and reliability of the opium. I report it cheerfully, notwithstanding it is very uncommon for physicians to report unsuccessful cases:

June 1st, 1854. My friend Dr. Craig requested me to visit a patient of his whose hernia had become strangulated about six hours previous to my visit. The Doctor had tried the taxis, aided, I believe, by the whole list of auxillaries, without being able to reduce the tumor. The patient *pointedly* refused to submit to an operation. I then suggested the opium treatment, which the Doctor readily consented to, and we ordered ½ gr. morphine, with a little soda, every hour, until narcosis was produced, when the Doctor was to be notified. But unfortunately for science and the man's own welfare, the family were not strictly honest with us, and when the man began to roll up his eyes and see sights, they put the powders aside, and told Dr. Craig, on his next visit, that the patient had taken them all, but had thrown them up. The Doctor repeated the prescription with the same relief to the pain and vomiting, but was unable to narcotise him thoroughly for two days, when business called him from home. He left orders with the family for them to send for me immediately; but they were so strongly prejudiced against the use of opium,

and the man was resting so easily, that I was not sent for until late in the evening of the 25th, when there was a return of all the symptoms, with a decided increase of pain and soreness in the tumor. I prescribed morphine, gr. 1, every hour, and calculated to stay and see why it was that he would not become narcotised, but was called away and detained until morning. When I returned I found he had rested well, and they reported him to have taken three doses of the prescription. This I doubted, and directed 1 gr. morphine every hour, and stayed to see that they were given.

In about one hour after he took the second powder I succeeded in reducing the hernia without any trouble. He drank a strong cup of coffee and got up to the stool and had a very copious evacuation from his bowels, but died that evening, evidently from gangrene, though there was no post mortem allowed.

This man's life, I verily believe, might have been saved if they had been more honest with the Doctors.

[Cases IV, V, and VI, were all cases of Inguinal Hernia, in male adults, relieved by the taxis within eight hours from the first prescription of opium. The treatment and results were so near like cases I and II, that we deem it unnecessary to cumber the pages of your journal with an extended report.—Sect.]

Case VII is one of unusual interest, from the length of time the stricture remained, the amount of opium taken, and the favorable termination. It shows in an eminent degree, the power of opium in preventing inflammation and mortification. It likewise demonstrates what a degree of tolerance for opium is established or created by severe pain. One gr. of opium is a full dose for the patient under ordinary circumstances, yet under the influence of pain he took, in thirty-six hours, seventy-two gr. with impunity.

Called, July 22d, 1857, to see G. D. C., but being indisposed at the time, my friend, Dr. I. M. Coleman, kindly consented to visit him for me. He found a large scrotal hernia strangulated. After trying all the usual remedies and manipulations without being able to relieve the stricture, at

my suggestion he put him on opium, gr. ii. every hour. He took the prescription all night, but owing to the severe pain and irritability of the stomach, (some of the opium being thrown up, no doubt,) he was not narcotised. Prescription was continued twenty-four hours longer without any perceptible effect on the system except the partial relief of pain and soreness. Vomiting was frequent, but less stercoraceous. I was now (the 23d) able to visit the patient, and Dr. Stipp, of Bloomington, was added to the consultation. Dr. Stipp was in favor of an operation but thought it too late to be of service. At his suggestion we introduced a long flexible tube, and filled the rectum and colon with warm water, which passed away without fœces. We then injected laudanum up the rectum, but it was not retained. The case now was considered almost hopeless, but I was anxious to try the opium further, so we agreed to give him sulp. of morphine, gr. 1, every hour, until he was narcotised. His stomach rejected the first dose, when a second was given immediately, and I remained with the patient to watch the effect. After taking the fifth portion of morphine, the patient went to sleep. In thirty minutes more I succeeded in reducing the hernia with the greatest ease. He was thoroughly narcotised, and the muscular system perfectly relaxed. We gave strong coffee freely, moved bowels by enema, and in sixteen hours he was able to be up. He complained of but little soreness or inconvenience about the ring, notwithstanding the tumor had been "worked with" frequently and sometimes severely, for the last sixty-five hours.

Convalescence was rapid, and in four days he resumed business.

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We are aware that the number of cases here reported are insufficient to establish any one principle in the practice of medicine. But the report contains all the cases of strangulated hernia that have occurred in my range of practice since 1850. The result of the treatment we deem sufficient apology for presenting the subject for your consideration. Hoping the members will give it a candid consideration, and

a fair trial when opportunity offers. If my conclusions are correct, that opium prevents inflammation and gangrene, you are running no risk, for if you fail with this treatment you can still resort to the knife, and with less danger of the operation being followed by a fatal peritonitis.

There may be nothing essentially new in this mode of treatment, but if it has ever been recommended or practiced in this country I am in "blissful ignorance" on the subject. It certainly is not spoken of in our text books or in any medical literature that has come under my observation.

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Since the above paper was read the opium treatment has been tried by several members of our society. Dr. A. H. Luce, of Bloomington, reports two cases treated in this way with entire success, and Dr. Harrison Noble, of Keyworth, one. Dr. I. W. Coleman, of Le Roy, has furnished me with a full report of a case treated by himself and Dr. T. D. Fisher, an abstract of which I furnish for publication as a continuation of the essay above.

Called April 1st, 1859, at 3 o'clock P. M., to see Mr. A. C., age 55, whose hernia had become strangulated the evening before. Found him suffering much pain, with retching and vomiting of stercoraceous matter. I placed him in situation, and endeavored to reduce it by taxis, but failed, after repeated trials. Having been associated with Dr. S. W. Noble, in the treatment of one of the cases reported in his paper, I at once resolved to resort to the opium treatment, having faith that it was equal to the emergency. Prescribed opii. gr. i, every hour, until he should become narcotised, and left, promising to visit him early next morning.

Being unavoidably detained, I did not get to see him till noon of the next day. Learned that patient had slept soundly during the night, and on waking at six in the morning, much to his joy, his hernia had returned. But having occasion to pass his water, while standing over the chamber, his hernia came down again. The pain and vomiting having returned, we a second time put him on the opium, and left him. Next morning, at day-break, we were summoned in haste to see

him, the messenger reporting him decidedly worse. Dr. T. D. Fisher, his family physician, having been absent and returned, visited the patient with me. Patient was much exhausted from loss of sleep, pain, and vomiting, and on inquiry we learned that the friends, after giving him one of the powders and his throwing that up, concluded that it was the medicine which caused so much irritability of the stomach, and did not give any more.

After consultation we concluded to give morphine, gr. i, and wait awhile, and then try the taxis; but did not succeed in the reduction of the tumor. Cold water, ether, and enemas were tried, with no better result.

Not yet discouraged, we decided to give the opium a fourth and last trial. Prescribed morphine, gr. i, every two hours, until narcotism came on, and left, promising to be back in the evening. On our return we found the patient comfortable; vomiting had ceased, and the tumor was materially reduced in size. The bowels having been moved, taxis was again applied, and the hernia was replaced without difficulty. Convalescence was rapid.

Le Roy, Ill., Feb. 13, 1860.

ARTICLE 5.

For the Chicago Medical Journal.

PHYSIOLOGICAL INCEST.

BY W. BOYD POWELL M. D., COVINGTON, KY.

Messrs. Editors:—By the above title I designate marriage in contravention of physiological law.

There obtains in society a very general conviction that consanguine marriages deteriorate the species by entailing on progeny idiotcy, other mental imperfections and constitutions so depraved as readily to develop scrofulous forms of disease; and yet it is strongly to be suspected that the truth of this

general conviction has never been established. Some fifteen years ago I was induced to suspect the existence of a physiological incompatibility between the sexes in relation to progeny and thus I was induced to adopt a course of action and careful observation of progenitors and progeny, and the result has been a thorough conviction that my suspicion was well founded,—that a physiological incompatibility in relation to progeny obtains very frequently between the sexes, and it consists in this:—certain of the human temperaments are incompatible in relation to progeny. This *a priori* appears to be much more probable than that consanguinity should produce an incompatibilty, because temperament is a positive condition and therefore may become an agent; but consanguinity is merely a relation which can exert no agency.

I nominate this physiological incompatibility, physiological incest; and to the extent of my knowledge it is the only incest nature has established; and to this incest do I attribute all the idiots, much of the insanity, all genuine phthisis, and all scrofulous forms of disease, half of the juvenile mortality, and a large percentage of the premature adult mortality which now afflict the human race. I admit however, that these evils do attend occasionally consanguine progenitors, and as consanguine parties are not physiologically exceptions to the race, it follows that they are as vulnerable to physiological incest as other parties, but I deny that consanguinity has any agency in this relation.

That system of the temperaments which I adopt, with some modification, is that which has descended to us, probably from Hippocrates or Galen. It embraces four temperaments, namely: the Sanguine, the Bilious, the Lymphatic, and the Melancholic. The description which has been had of the Melancholic so strongly indicates a pathological condition that physiologists seem to have, by a common consent, ceased to regard it as a physiological one; nevertheless, early in my investigations of the temperaments, I became convinced that humanity was distinguished by four constitutional conditions or temperaments, and after seven years of unceasing observation, I discovered an individual whom I supposed to

represent the fourth temperament, and I nominated it the Encephalic, and no fact has since come to my knowledge to induce me to suspect that I had adopted an erroneous conclusion. But I strongly suspect that the ancients observed the same condition and nominated it the Melancholic, but if they did they left no evidence that they comprehended either its anatomical or physiological condition. The Encephalic temperament is distinguished by a large cerebrum and a small cerebellum, consequently all the functions incidental to life, both animal and vegetative, are feebly manifested.

The four elementary temperaments, by their combinations, produce ten more, making, in all, fourteen, and for the purpose of convenient reference, I will tabulate them.

THE ELEMENTARY TEMPERAMENTS.

1. Sanguine temperament.
2. Bilious "
3. Lymphatic "
4. Encephalic "

THE BINARY COMBINATIONS OF THE TEMPERAMENTS.

5. Sanguine bilious temperament.
6. Sanguine lymphatic "
7. Sanguine encephalic "
8. Bilious lymphatic "
9. Bilious encephalic "

TERNARY COMBINATIONS OF THE TEMPERAMENTS.

10. Sanguine bilious lymphatic temperament.
11. Sanguine bilious encephalic "
12. Sanguine encephalic lymphatic "
13. Bilious encephalic lymphatic "

QUARTERNARY COMBINATION OF THE TEMPERAMENTS.

14. Sanguine encephalic bilious lymphatic temperament.

Application of the Temperaments to the Elucidation of Physical Incest.—All the temperaments are incompatible with themselves, but 1, 2, and 5 are less so than the others; and an alliance between either two of 1, 2, and 5, is incompatible; but 1, 2, and 5, are compatible with all the others.

But no other than a highly incestuous marriage can be made between any two of 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, and 14.

If an alliance between 3 and 4 produced any progeny, which I think to be very improbable, it would be dead born. But such a marriage I have never seen.

Death in infancy attends the progeny of an alliance between persons indicated by 6 and 7. And an alliance between persons indicated by 7 and 8, is equally unfortunate.

The progeny of an alliance between 7 and one of same, will die in infancy of hydrocephalous, or tubercular meningitis.

The progeny of progenitors indicated by 8 and 9 will die young of scrofulous forms of disease.

The progeny of progenitors indicated by 9, will be idiotic.

The progeny of progenitors indicated by 9 and 14, will, some time in early life, become insane.

The progeny of progenitors indicated by 8 and 11, will die of tubercular disease of the lungs or mesenteric glands.

Two-thirds of the progenitors indicated by 13 will be dead born, and the other third will die during infancy.

Progenitors indicated by 12 and 13 will be attended with similar results.

P. S.—I have given so much attention to this subject, that I can at sight distinguish physiologically incestuous parties, and can teach any other person of respectable capacity to do the same.

Now, Messrs. Editors, do you entertain a doubt as to my having made the discovery herein claimed? If you do, review your own practice for a few minutes, and you will be able to call up cases that will sustain me. Have you not treated scrofulous forms of disease in the families of sound and healthy progenitors, those, too, whose constitutions contra-indicated any scrofulous taint? Such is the depopulating influence of this incest, that were emigration to our country to cease, I believe it would, in two hundred years, depopulate our country. If this contribution find a place in your journal please favor me with a copy.

I will conclude by giving you a patent fact. Dr. Patterson, Superintendent of the Idiotic Asylum at Columbus, Ohio, in response to my inquiries, says that he has carefully inquired as to the progenitors of the idiots brought to the institution, and has not been able to learn that more than two per centum of them were of consanguine progenitors.

ARTICLE 3.

STOMATITIS MATERNA.

BY L. S. ELLIS, M. D., CHICAGO, ILL.

This disease has, of late, elicited much attention from the medical profession. Its severity and obstinacy have been not a little magnified; its pathology pushed far into the mysterious; its treatment as varied as speculation, and speculation verged near upon absurdity. It has been represented as a new disease, which the oldest practitioners "have never yet met with," and a recent writer "could not find a single reference to this disease in any of the works of Practice, or Special Diseases of Females."

Dr. Dunglison, in his Practice, printed in 1842, vol. 1, p. 31, says: "It is not common with us, but it is said to be very often met with in moist countries, as in Holland, where it reigns at times epidemically, and is a serious affection, attacking adults, and child-bed females especially." Again, on p. 32, "The author has observed some obstinate cases in women who were nursing, the affection appearing to be induced by the constant drain from the mother interfering with nutrition."

In Bell & Stokes' Practice, 1845, I find, "There is yet a kind of sore mouth, which, as far as our present knowledge extends, is seen only in women during lactation." Vol. 1, page 52.

Dr. Wood gives the disease as extended review, as the relative importance of the disease demands.

The medical literature of this malady is more abundant, and in our country, extends back at least thirty years. I have not yet seen any such evidence as to induce me to believe that the disease is of modern date. The great source of modern improvement in medicine consists in a more accurate isolation and discrimination of particular disease. This accurate discrimination of disease alike tends to the advancement of our profession, and to individual success. In many cases what were considered symptoms by old authors, are now exalted into the ranks of distinct diseases. Also, by reference to authors as old as Cullen, we find whole groups of distinct diseases grouped under one head or class, determined by locality. Thus, under the title of Hepatitis, Cullen gives but three pages to diseases of the liver. While thus he makes no mention of such diseases as *fatty degeneration* or *cyrrhosis*, no one will claim that such maladies had no existence in his time. I believe that wherever a like combination of influences exists, there like consequences will follow.

Views of the pathology of this disease are as diverse as the localities of the authors. A recent writer says, "In all these cases I have seen inflammation of the cervix uteri and of the superior portion of the vagina." Another finds the *causa belli* in "miasmata," in "biliary derangement," and in "the influence of gestation and lactation." Another dives deep into that medical arcana, the blood. That inner temple of mysteries holds a wondrous amount of vagaries, whose warrings, if visible, would reveal to us a terrible pandemonium in that "liquid flesh" of ours.

The most positive testimony exists as to the unlimited extent of the prevalence of the disease. Proof is as abundant as of any disease whose history has been so recently written. None will doubt its existence in Illinois. Prof. M. M. Pallen speaks of it in Missouri; Dr. Shanks in Tennessee; Dr. Brandon in Georgia; Dr. Armor in Ohio; Dr. Dunglison in Pennsylvania; Dr. Backus in New York; Dr. Hale in Mas-

sachusetts; Dr. Marshall Hall in England; M. Guersent in France and in Holland. Names could be cited by scores, showing that the disease is not confined to malarious districts of our country. It occurs alike on the mountains of New England and New York, as well as on the prairies of Illinois. It exists in England, where Dr. Watson says, "Intermittent fever is known to us only in its group of symptoms." Likewise on the continent its existence with malaria exclusively is without proof. Before we accept this dogma of its malarious relation, we ought certainly to have some *positive* proof of its obeying malarial laws; proof that it occurs in greatest extent and severity at the same seasons; decreases in cities; vanishes with the settlement and cultivation of our country, instead of with the "*early healthy physical development* of the daughter." On the contrary, I have observed it at all seasons, following not in the channel or seasons of epidemic malaria, but after fortuitous occurrences with those whose idiosyncracies predispose to it.

As before intimated, the *blood* has been obliged to assume the burden and responsibility of this disease. As a scapegoat of physical aberration, it has borne, not only the disease in its obscurity, but its task-masters into still greater mysticism. In this connection I cannot forbear quoting from a recently promulgated theory, especially illuminating:

"Of its dependence upon the depravity of the blood, I have no doubt. I consider the health of this vital fluid dependent upon the harmonious action of all the assimilative organs of the body, and a due supply of *pabulum* of proper blood food.

"If any one of the tissues fail to be nourished by an error of nutrition, I think the elements of that tissue *remain* as abnormal constituents of the blood; and that the elimination of those particular elements by their natural elective power, *alone* can render it normal for the production of the other tissues.

"The developement of *hair* upon the *fœtus* in utero, is in obedience, I think, with *this* general law. We know of no other physiological utility, as it almost always, very soon after birth, gives place to a reproduction. If its elementary con-

stituents are eliminated in the progress of fœtal development, that the *blood*, after this assimilation, might be in its integrity for a second assimilation to nourish another tissue; and the succession of these assimilations maintain not only the proper constituents, but the constant normal catalysis of the *blood*, then we see how necessary are the developement of all the uses *in utero*, as well as after birth. And the development of rudimentary structures in the *one sex* when the requirements of organs are confined to the *other*, as in case of the mammary gland, etc."

To know what the above means, what are its relations to Stomatitis Materna, and how it proves it a blood disease, the inquirer must refer to Trans. Ill. State Med. Society, 1859, p. 43, et. seq."

It is "a blood disease?" If so where is the proof? Do the speculations of writers make any approximation to proof? Does the successful therapeutical management of the disease, even by such theorists themselves, afford any support to their theories? If any knowledge of practical value is to result from theory, it seems it ought, in some manner, to be supported by microscopical investigations, corelative symptoms, and therapeutical applications. Dyspepsia may be accompanied by a "paucity of blood corpuscles." Is it, therefore, a blood disease? Prolonged lactation will favor "impoverishment of blood, impair nervous agency, and derange the secretions." Is it a blood disease? Why not come to the obvious and palpable conclusion, that the stomach is primarily at fault—that the "impoverished blood," the "deranged biliary secretions," the "constipated bowels," the "irritated stomach," the "acid urine and saliva," and the ulcerated tongue, are but symptoms of the central derangement—are but indices of impaired digestion, not in the nursing woman alone, but in the dyspeptic man and child.

In all cases falling under my notice, I have found evidence of impaired function of the stomach. This will be found a leading characteristic of the malady if attention is directed to it. These functional derangements do not follow as a sequence of the stomatitis, but are found to precede it in many cases a

long time. Women who have had this disease many times, learn by experience to avoid indigestible substances, especially such as induce acidity of the stomach. I have observed connected with this disease, loss of appetite and taste, acidity of stomach, gastric uneasiness after eating, constipation or diarrhœa, persistent or alternating, biliary derangement &c. Following these as a sequence in long continued cases, comes in a long train of "diminution of blood corpuscles," "anemia," "land scurvy," modification of condition of blood," &c., of various authors.

Rapid decay of the teeth is also apt to occur in this train of symptoms; a circumstance I have always referred to the acid secretion acting on the teeth. Herein is the explanation of so many American women losing their teeth, especially in the first lactation. This seems to me to be as much entitled to a place in the category of blood diseases as Stomatitis Materna. If the above described condition of the stomach continues unabated, the decay of the teeth is almost sure to occur, more sure than the disease under consideration.

I am not alone in this mention of gastric derangement. Dr. Dunglison, in his Practice, vol. 1, p. 31, says: "This form is accompanied by great cephalic, gastric, and general disturbance, and at times the eruption appears to extend to the intestinal canal, giving rise to severe pain in the abdomen, diarrhœa, and typhoid symptoms, under which the patient may sink."

Dr. J. H. Hollister says: "In a great number of instances the disease has made its appearance as the immediate sequence of constipated bowels, and was relieved almost as soon as the proper correction was made." Vide Trans. Ill. Med. Society, 1859, page 47.

Dr. D. S. Brandon, after enumerating the mouth symptoms, says: "To these may be added, burning in the stomach, with occasional vomiting, constipation, or diarrhœa, more or less obstinate." Southern Med. & Surg. Jour. Jan. 1860, p. 4.

I am now in attendance on Mrs. R., who is seven months in pregnancy. She complains of acidity of stomach, and evidences of gastric derangements, and the urine is so intensely

acid as to produce severe inflammation and excoriation of the external parts. She has had Stomatitis Materna during previous lactations, both here and in Central New York. I look for the same sequence after her confinement, unless that condition of the stomach is relieved, but not otherwise. In one of the worst cases I ever saw, Mrs. H., it always accompanied acidity and was readily relieved by tonics and antacids. I could point to case after case presenting the same association of symptoms, readily relieved by remedies addressed to the stomach, so that I am accustomed to direct my attention to that organ, and am not inclined to look upon the disease as so uncontrollable and unpromising as many writers.

Much of our knowledge of the *character* of disease is derived from observance of the *effects* of remedies. An important hint, as to the pathology of this disease, may be obtained by reviewing the various remedies proposed by different writers. Dr. Backus may have been hypothetical in his opinion of this malady, but he certainly indicated a principle in its treatment, the wisdom of which is evidenced by its general adoption. His prescription is as follows:

℞—Carb. Ferri. grs. xlv.
Pulv. Rhei.
Gum Aloes āā grs. xv.
Pulv. Ipecac.
Sapo. Hisp. āā grs. xij.

M. Ft., Pill No. 50. "Two of these pills should be taken twice or three times a day or often enough to keep the bowels *very open*."

Dr. Hale rests the cure chiefly on "tonics, such as lime water and infusion of bark." Dr. Wood says "the most efficient remedies are said to be tonics, antacids and laxatives." Dr. D. S. Brandon, in a paper before referred to, lauds turpentine, combined with castor oil or laudanum, according to the state of the bowels; "say twelve drops three or four times a day, on a little loaf sugar, and in no instance that I know, or have heard of, has it failed."

Dr. Armor proposes the syrup of hypophosphites, combined with Sime's Elixir of Peruvian Bark. It may be surmised

that the Elixir has as much to do with the cure as the hypophosphites.

I am accustomed to use the two following prescriptions with uniform success:

℞—Mag. Calc. ʒ i.
Sapo. Hisp. pulv. grs. x.
Camphor "
Sang. Can. " āā grs. v.

Mix. Dose from three to five grains, four times daily.

℞—Cinch. Rub. ℥ ss.
Ferri. Carb. Prace.
Rad. Rhei. āā ʒ ij.
Port Wine Oj.

Ft. Mist. Dose, table-spoonful with each meal.

When there is loss of appetite I direct the tonic to be taken half an hour before eating, and the powder soon after, otherwise both are to be taken soon after eating. In many cases where there is not much constitutional debility, and in the earlier stages I find the first prescription amply sufficient to control the disease.

Many local applications have been proposed; among them nitrate of silver has received its due amount of laudation. I have seen this used repeatedly, often with no benefit, and at most affording but temporary relief. With correct views of the pathology of the disease, such an event might be anticipated. When I hear of a physician using this treatment I am constrained to think he does not know what he is dealing with—that his opinion of the disease does not extend any further than he can see.

Very many writers and practitioners recommend, in severe cases, the *weaning of the child. My experience and observation is such as to lead me to hestitate to recommend any such procedure.* It may be conservative to the mother's health, but there is a tender offspring, who claims our sympathy and consideration as well as the mother. The chances of rearing children throughout our land are few enough at best—small, indeed, in our cities—and fearful to the child that is weaned in the first weeks of its existence. A recommendation to

wean the child in such cases in our city, is but a warning to prepare its shroud. I scarcely know an instance in this city where a child has survived the first two or three years of its perils, when weaned as a cure of stomatitis. I have seen mother's turn away from such counsel, and avow their resolve to suffer on rather than expose their offspring to such fearful odds. There may be, and indeed are, severe cases when this proceedure seems imperative. I speak only against the indiscriminate recommendation of some practitioners, believing that, with proper treatment, a vast majority of mothers will survive and preserve their offspring.

With the above digression I return to the consideration of the pathology of the disease.

Post mortem examinations of the disease are not abundant. A few have been made. I take from a valuable contribution to the literature of this disease, the following appearances, as described by Dr. McLean:

"The stomach was almost completely denuded of its mucous coat, with numerous patches of ulceration extending deep into its muscular tissue. A small patch around the pyloric orifice of the stomach, was the only healthy portion." Trans. Ind. Med. Society, 1856.

Many writers have asserted positively that the disease occurs only in females, chiefly during gestation and lactation. Others, on the other hand, declare as assuredly that it occurs also in men, boys, and girls. I can only add to the strength of the latter position. I am certain I have seen it in that class of persons with characteristics as prominent and unmistakable as in nursing women. Its only difference seemed to consist in less persistency, owing to a more ready removal of the causes. I had abundant opportunity to examine a case of the kind occurring to a gentleman about thirty years of age. In this case the stomatitis occurred several times, immediately after eating blackberries preserved in tin cans a long time. Each attack was ushered in by the scalding sensation in the mouth, so intense as to cause severe suffering for several days, by vesicles with inflamed bases, by corrugation of the mucous membrane on the side of the tongue, slight swelling and

ulceration of the mucous membrane. In this instance the primary effect was obviously on the stomach. The stomatitis not following immediately, the cause was not discovered till after eating several times.

It may be true that we do not meet with it in so severe a degree as in nursing women. Such might be anticipated. All know that pregnancy and lactation exert a powerful and modifying influence on the stomach, both in health and disease. But I think that here the nervous system is more the medium for communicating sympathetic influence than the blood.

"Its attacks are not confined to any particular constitution or temperament, but are at times made on the most robust, who always enjoyed good health." Bell & Stokes, vol. 1, page 53.

This accords with my experience and observation, but is hardly consistent with the exclusive anœmic hypothesis of some writers.

It does not come within the scope of my object to give a detailed account of the local, mouth symptoms of this malady. They have been already sufficiently indicated in the foregoing. My object has been to indicate a few points in the history and character of this malady. If the position assumed is correct, the mouth symptoms become comparatively unimportant to the practitioner. His remedies must be directed to the stomach. My aim has been to substantiate the following positions.

First. That the history of the disease extends too far back to entitle it to the claim of a new disease.

Second. That so far as known it occurs in all localities and is not limited to malarial districts.

Third. That the primary seat of the malady is in the stomach, modified in the female by gestation and lactation, and followed by constitutional aberration as *sequences.*

This is sustained, 1st, by correlative symptoms; 2d, by therapeutical applications; 3d, by post mortem examinations.

Fourth. That nursing women are the chief sufferers, but that it occurs in other classes of persons.

ARTICLE 4.

ROCKFORD, Ill., March 1860.

Editors of the Chicago Medical Journal,

DEAR SIRS:

In the January number of your Journal I was happy to find Prof. Hudson's "Prize Essay on opium," in its "connected and more intelligible form."

If Prof. Hudson "enters the averment of a *stout denial* to the teachings of the great English author, Pereira," I trust he will pardon an humble member of the profession for offering a *small criticism* to one part of his Essay.

It is this, found on page 41 of the Journal: "a *convenient* and *safe* rule for the administration of opium to infants under a year old, is to give a drop of officianal laudanum for every *month* in the child's age." (The italicizing is mine.)

When I read the above quotation, I supposed it was an "*imperfect print*," but finding no correction in the February number of the Journal, I can understand it *only* as "the text of the undisturbed deliberations of the Essayist," and could not let it pass without notice.

When I was a student I was told Pereira was good authority. Acting upon that teaching I purchased his work, and have ever since been pleased with it. Turning to article Opium, under the head of Tr. Opii, or Laudanum, I find, "for an adult (the dose of laudanum) varies from minims x to f℥ i. To *children* it must be given with the *greatest* caution. I have seen a powerful effect produced in a very young infant by *one* drop." Other authors speak of the *medium* dose of laudanum as *twenty* drops for an adult. *All*, or at least *most* writers agree that infants do *not* bear opium in the same proportional dose, that they do most other remedies, compared with adults. A person 20 years old, may, for practical purposes, be called an adult. Now if an infant twelve months (1 year) old, will "*safely* and *conveniently*" bear twelve drops of laudanum, then a person 20 years old will bear, at least, twenty times as much, two-hundred and forty drops, or f℥ iv, or twelve grains of solid opium. Well, I know adults *will* bear such a dose of opium, for I have administered it. But, that is not

granting it is a "*safe* and *convenient*" dose, meaning, of course, an *ordinary* dose. It would be only in *extreme* cases I would venture upon such *heroic* treatment. On page 39 of Journal I find, "If an infant is tender and susceptible, it is therefore more susceptible to medicines, a responsiveness which holds to the advantage of the discreet physicians. It then requires a less dose," but infants do *not* bear the same proportional dose of laudanum with adults, so I think twelve drops of laudanum to an infant one year old would be equal to f 3 vi, or equal eighteen grains of solid opium to an adult. And on page 41 I find, "The poisonous dose does not appear to be reached *much short* of *twenty grains*. A *few* may be poisoned with a *less* dose, but many will escape the toxic influence of a much larger quantity." Now, if (as I think has been fairly shown) that Essay teaches eighteen grs. of opium a "*safe* and *convenient*" dose for an adult, I think it comes mighty near to a poisonous dose, so near, it should be administered *only* by the most *careful* hand, guarded by a most accurately adjusted balance. It *is* too near a toxic dose to be "*safe* and *convenient*."

Pereira says of the dose of opium, "one-eighth to one-half a grain is a *small dose* for an adult, from half a gr. to two grs. we term a *medium* dose, and from two to five grs. we denominate a *full* or *large dose*."

While *I* would without hesitancy far exceed the dose as given by Pereira as a "*full* or *large* dose" in extreme cases, (and I doubt not *he* would too) I can but depricate the open handedness with which it is dealt in the Essay.

On page 42 a case is reported, as being rather remarkable in which "a child not quite six years old took *seven* and a *half* grs. of opium without a fatal effect." Now if we figure on that case, we find that a child one year old will take *twelve* drops of laudanum as a "*safe* and *convenient*" dose, then a child six years old should be able to take seventy-two drops, or three and three-fourths grs., just one-half a fatal dose, in ordinary cases. But *one-half* of a fatal dose of any remedy will be administered, by the discreet physician, *only* in *extraordinary* cases of sickness.

If you will allow me a little more space in your Journal, I will give my views of the use of opium in two or three diseases, and by these views you will see I highly prize opium, not only as a *palliative* but as a *remedy*. But first I will give my rule as a "*safe* and *convenient*" use of laudanum, for infants. It is, for ordinary cases, one drop of laudanum for every *year* in the child's age, to be doubled in a case of severe suffering. This is my direction to "Mothers," but *I* double and quadruple that dose without hesitancy, in a case of *great* emergency, but *never*, I think, did I give a child one year old, *twelve* drops of laudanum, and I hope I never may feel obliged to.

I think the Professor rates the value of morphine too *low*, compared to opium. I offer it merely as my opinion, that one gr. of morphine is fully equal to four of opium.

Now, as to opium in Dysentery. Eleven or twelve years ago last fall, I concluded opium was good in Dysentery, and determined the next case of that disease I saw, I would give it the full benefit of a *full* dose of *ten grs.* But my *first* case was a feeble female, who had been given to the use of Homœopathy for a number of years. For twenty hours previous to my call she had been up as often as every *half* hour, with a *constant* desire to sit on the stool, very severe bearing-down pain, and the passages of blood and mucus. I gave to her *eight* grs. of opium at *once*, and dealt other powders, of opium v grs., quinine iij gr. each, to be taken every three hours through the night, *if she got up as often*. This was a little after dark, and she did not have to leave the bed again till morning, and then to assist about the house, as she had *no* movement of the bowels for a number of days, she required a laxative. Succeeding so well in the treatment of that case as the *first* on my new plan, (I say, *my*, for I never heard of opium being given so freely, in dysentery, before,) I have followed the same plan invariably, of giving eight to ten grs. at *once*, and in most every case have succeeded as well. A very few times, opium has failed me, and *when* it fails, I am completely at a loss *what* to do. I said I *invariably* followed the opium plan of treatment. I do *not* and with *infants* I *dare not*. Hence dysentery in *infants* is the plague of my life.

And to the use of opium in intermittent and bilious fevers, a word:

I think I can safely say, I have not made, for adults, twelve prescriptions in twelve years, for the arrest of an intermittent, remittent, or bilious fever, when quinine was the base of the prescription, but what opium entered *largely* as one of the *remedies*. I *always* use it, and *rely* upon its beneficial effect. In "congestive intermittents," it, with me, stands at the top of the tower, if seen in the stage of congestion. Illustrating my views by the case of Mrs. S., as reported on page 37, I should have preferred for the first prescription, Opii. gr v, Camphor gr. iij, and Ipecac gr. ij, and as soon as re-action had become well developed, quinine and opium at shorter intervals than recommended by Dr. H. though in *that* case the paroxysm, it seems, was promptly arrested by the administration of the remedy at *long* intervals.

I am surprised that Prof. H. did not speak more particularly of the use of opium in the treatment of Pleurities and Pneumonitis, especially of the last mentioned disease. "Walshe on the Heart and Lungs," goes through the treatment of Pneumonitis without so much as intimating that there is such a remedy in the Materia Medica as opium. If a father saw his little family of half a dozen children sinking for the last time, to find a watery grave, and he could save *one*, and *but one*, and *the* one he chose, he would be placed in straightened circumstances in making a selection; so, in selecting from a half dozen of the remedies for the treatment of pneumonitis. But *I* should say, most *emphatically*, let *opium* be *one* of the remedies.

Hoping I may have offered at least *one* beneficial thought,

I remain, very truly and sincerely, yours,

J. Blount, M. D.

The above criticism, in one point, at least, is justly liable to *criticism*, for 240 drops of laudanum is equivalent to *two* fluid drachms, not *four*, as stated; the writer evidently based his calculation on minims instead of drops.

ARTICLE 5.

TAPE WORMS.

BY E. C. DE PUY, M. D., OF FREEPORT, ILL.

Was called, October 13th, 1859, to see Mrs. S. a pale delicate woman, with a "dark, leaden appearance of the contour of the eyes," aged 29 years. The mother of two children, the youngest five years old. Found her just recovering from an attack of convulsions.

After a careful examination for the cause of the attack, I could not find anything wrong, except some decayed teeth, which were very sore, and had troubled her for some time. The functions of the various organs, digestive tube, lungs, heart, urinary and generative, were apparently healthy. As she complained of a peculiar sensation—epileptic aura—about her jaws, and running from them down the back of the neck, I was led to think the decayed teeth the cause of all her trouble. They were all extracted by her dentist, and she was put upon vegetable bitters and iron to improve her general health. Her appetite improved, and she said she felt better, only sometimes she was very nervous, and that ugly sensation about her jaws and neck troubled her some.

She remained thus until the night of the 25th of February 1860, when she had three attacks of convulsions, which were relieved by Tinct. Gelseminum, Fl. Ext. Scutellaria, Chloric Ether āā in tea-spoonful dose, and Chloric Ether by inhalation; also, friction along the spinal column, with stimulating liniment. On the following morning another careful examination was made to ascertain the cause of the convulsions. The urine was tested for albumen by nitric acid and heat, and found perfectly free—no coagulum. The bowels moved every day and appeared perfectly natural—function of the womb healthy. Ordered Hydrocyanate of Iron ʒ i., Ext. Hyoscyamus ʒ i, Mucilage q. s. to form mass, to be divided into 120 pills. Dose, one pill three times a day, to be increased according to the effect produced; also for her nervousness, Fl. Ext. Scutellaria ℥ ii. Fl. Ext. Pruni. Virginian. ℥ i Simple

Syrup ℥ i. in tea-spoonful doses, as occasion required. Improving, but complains of a constant spitting of offensive mucous, insensibly rising up in her throat, which symptoms, taken in connection with the nervous phenomena, led me to suspect the presence of worms. To operate mildly upon the bowels, and partly as a vermifuge, she was ordered from 3 to 5 grain doses every four hours, of the following compound: Podophillin ℈ i, Pulv. Jamaica Ginger ℈ i, Sugar of Milk ℥ i; mix intimately. Also to take 2 grain doses of Quinine three times a day, for its tonic effect on the nervous system. The powders operated very mildly but effectually upon the bowels, producing very offensive stools, of the consistence of tar, mixed with flattened seybala, representing the appearance of having been retained in bowels for some time; also, what we but little expected, a large number of pieces of tape worm, from a single joint to half a yard in length. The powders were continued, as it was evident that they were doing good in breaking up the habitat of, and otherwise disturbing the worm. The diet was very light—a little panada and wine.

After three or four days of such treatment, thinking that the worm was sufficiently exposed to be operated on by vermifuge or vermicide medicines, she was ordered a wine glassful of the following decoction, to be taken every half hour or every hour, as the stomach would bear, until all was taken: Bark of pomegranate root ℥ ii, boiling water Oii; steep down to one pint. To be followed, if the bowels were not much moved, or the worm not passed, by a dose of castor oil and turpentine. Commenced taking the decoction about noon; at 11 o'clock at night the husband called and said that the decoction was all taken, and the bowels had just moved, and he thought the worm had passed; and also that she was very faint, but free from pain, and otherwise comfortable, and desired to know if he should give the oil and turpentine. She was ordered a little wine and water, and rest until morning, when I visited her, and found that the bowels had just moved again, and that she was very comfortable. The last stool contained no more joints of the worm. The stool which

passed at 11 o'clock contained the tape worms (Tænia Soleum) which I send you for the College Museum. The bowels have moved without purgative medicines since, and contain no more of the tape worm.

The family are "good livers." Have not eaten much pork for years. They are natives of New York State. Have been in this city some four years. The patient now (March 15th, 1860) says she feels better than she has before for years. She is very nervous sometimes, but feels nothing of that drawing of her jaws and neck.

She is now taking the Hydrocyanate of Iron pills, and Tilden's Aromatic Calasaya Wine, as a tonic and a preventive, as worms are supposed not to relish aromatic bitters. It is encouraging for the patient to know that there are fully as many "heads as tails" in the mass of worms which were passed.

ARTICLE 6.

CASES OF RE-SECTION OF THE UPPER JAW,

WITH SUGGESTIONS OF AN IMPROVEMENT IN THE OPERATION OF REMOVAL OF NASO-PHARYNGEAL POLYPI.

BY DANIEL BRAINARD, M. D.

Re-section of the upper jaw is not so rare an operation as to attract very great attention at the present day. It is, however, an operation of recent date, although parts of the jaw and in cases of necrosis, even the whole, were long since taken away. The practicability of re-secting it for disease is said to have been first demonstrated by Gensoul, of Lyons, and its removal first effected by Dupuytren. Even the whole of it, on both sides, has been successfully removed by Maisonneuve, Heyfelder, Tarefi, Lizzars, Liston, and others. In this country, the upper jaw has been removed by Warren, Mott,

Stevens, Eve, Mutter, Rogers, Mussey, Pancoast, Jamison, and probably by many others.

I have removed the whole of the upper jaw, on one side, including the malar and part of the palate bones, three times, and parts of it several times. The first operation was performed May 23, 1846, and published in the medical journals of the time. The tumor was fibrous and cartilaginous, probably not malignant, as the patient died about two years after, without return of the disease. The second will be reported herein.

The circumstances requiring the operation are well known, excepting as regards the case of polypus of the nostril, of large size, and extending into the pharynx, for which the removal of the jaw has been performed, but concerning which the practice cannot be considered settled. Flaubert, Michaux, Robert, Maisonneuve, Davigne, and Arrachart, have resorted to the practice. Dr. Mott laid open the nostril in a similar case, and by cutting away the anterior bony margin of that cavity was able to arrive upon the root of the polypus. Roux also resorted to incision of the nostril, but Gerdy, in the discussion at the Society of Surgery in 1852, questioned the propriety of these operations, and asserted that by repeated attempts naso-pharyngeal polypi can be removed without them. Mr. Nelaton incised the veil of the soft palate in order to arrive upon the root of a polypus.

Prof. Laugenbeck, of Berlin, has lately performed an operation "which consists in re-secting the nasal bones and the orbitar process of the superior maxillary bone, leaving a bridge of periosterum by which they may remain adherent to the neighboring parts and which permits them to re-unite after the polypus has been removed and the bones replaced. Prof. Laugenbeck has performed this operation with perfect success." (*Med. News and Library*, for March, 1860.

M. Legouest incised both the hard and soft palate. *Gazette Des Hopiteaux*, 1859, p. 168.

I add to this paper a note of some cases of this kind in which polypus was removed without incision.

Case 1.—Removal of the upper jaw for cancerous disease:

Caleb Inman, of Wisconsin, a farmer, aged 60 years, consulted me October 17, 1851, on account of a tumor of the left upper jaw. It projected in front so as to elevate the cheek—downward into the mouth where there were openings caused by the falling out of the teeth, from which pus and serum discharged—encroached upon the nostril, from which there was a discharge of mucous and projected externally beneath the zygomatic arch.

The disease had commenced about six months previously by a discharge from the nostril. Soon after a tumor appeared beneath the eye, which ruptured or was opened. Its growth had been rapid and attended with much pain. The general health was much impaired. He had been treated with iodide potass. internally, and applications of nit. silver locally.

The operation for its removal was performed October 18, 1851, in presence of Drs. Rutter, McArthur, and several other physicians and students.

The steps of the operation need not be described, as they were the same in every respect as those described in the case Miss Derey, already referred to.

The points of importance, however, to which I would call attention are these:

1. Uncovering the tumor freely by an incision extending from the middle of the upper lip to near the internal angle of the eye, and another at right angles with this, extending over the zygoma. Where the whole jaw is to be removed these free incisions are required. Where pieces only are to be taken away, it may be done through the mouth alone.

2. Dividing the palate portion of the superior maxillary and palate bones with a metacarpal saw and the nasal process, the connection of the malar to the external angular process, and the zygoma with a pair of strong bone scissors.

3. Driving a chisel, with a mallet, into the temporal fossa, and using it as a lever to start the jaw from its connections. This is only required when the tumor has a certain degree of firmness.

4. Putting upon the cheeks, from the angle of the mouth backward, the forceps with slide for controlling hemor-

Fig. 1.

rhage, already described in this journal, a figure of which is re-produced here, representing the instrument of half size. (Fig. 1.)

I have used these forceps recently, in an operation for the removal of the upper jaw, and in two very severe operations for deformity of the face, and found in all, that it controlled the circulation in the facial artery perfectly.

The attachments of the soft parts can then be readily divided with the bistoury.

This plan permits the greatest dispatch, which, when there is much hemorrhage, as was the case in this instance, is an essential point.

The patient was kept upon stimulants and a nourishing diet and at the end of three weeks was able to return home with the wound nearly healed.

The tumor was soft and the antrum found filled with a fungus growth. For four years there was no return of the disease, but at the end of that time the growth re-appeared, and soon caused his death.

Case 2.—Mrs. Rogers, of Bureau Co., Ill., aged 20 years, was sent to me by Dr. Hopkins, of Princeton, in March, on account of a tumor of the right upper jaw. She stated that about two years since, she had a tooth that was troublesome, and which she dug out herself about a year ago, March, 1859. Soon after, a fungus began to grow from the socket which was repressed in some degree by caustic. This proving insufficient, it was removed by operation, August, 1859, soon after, the fungus re-appeared and was again removed by operation, Nov., 1859, this time the wound cicatrized, and for about three months no return was noticed. In Feb., 1860 it grew again so rapidly, that March 5th it was of the size of a small orange, projecting in form of a bleeding fungus into the mouth. The external appearance is shown in the

figure. This patient is young and vigorous, and her health has suffered but little, although recently she has taken morphia to obtain rest at night.

It was removed March 7, 1860, with the assistance of Drs. Wheeler, Powell, Durham and several students, in the manner already described. The spongy part of the ethmoid bone and the vomer were so connected with the diseased mass as to render their removal advisable.

The tumor was distinctly encephaloid in structure, and under the microscope, presented the appearance described as that of cancer cells, in a marked degree.

No dangerous symptoms followed, and at the end of two weeks the patient was able to walk about and take her usual food.

Case 3. Bony cyst of the anterior wall of the antrum removed:

Mrs. R., aged 34 years, of good constitution, consulted me, in the summer of 1858, on account of a projection of the left cheek, presenting a projection of the size of a large nut. It was of bony hardness, tender to the touch.

She stated that this swelling made its appearance twelve years previously, when it was soft and free from pain. It gradually acquired a bony hardness. In December, 1857, it suddenly became painful, the pain extending over the whole of that side of the face and head. After this had continued about two weeks she felt a sensation of something "giving way," which was followed by a copious discharge of pus from the nostril, which had continued up to this time.

This tumor was removed by an incision through the cheek. A bony cyst of the size of a hickory nut being cut away with the chisel and hammer. In the side next the antrum was an opening through which the pus had discharged

itself. A tent was kept in the wound for three weeks, when it was withdrawn. At the end of six months the wound was healed and the discharge of pus had entirely ceased. Recently, more than a year after the operation the patient remained quite well.

Suggestions Concerning the Removal of Naso-Pharyngeal Polypi, without Removing the Upper Jaw.

1. The treatment of ordinary gelatinous polypi, consists in extracting them carefully and perfectly with the forceps.

2. Fleshy and Fibrous polypi, which hang down behind the veil of the palate, should be seized in the pharynx by strong forceps, and removed by a rotary movement.

3. Vascular polypi may be crushed and left *in situ*, when they disappear.

These propositions will, I think, hardly be questioned, for putting a ligature around a polypus which sinks behind the veil of the palate, is unnecessary; if it remains above it, it is very difficult, and often impossible.

But there remains the question of the treatment of those large, firm polypi, situated deeply at the back part of the nostril, which cannot be drawn forward, and which do not project sufficiently behind the palate to admit of being seized with ordinary forceps, and for which the operation of removal of the upper jaw, an incision of the nostril or of the soft or hard palate, has been proposed and performed by Mr. Manne, in 1847, and by M. Maisonneuue, after what he terms the method of the *boutonniere*, viz: by an opening in, instead of division of the edge of the veil of the palate.

In 1841 I attempted to remove a large fleshy polypus with the forceps, which resisted all my efforts, although it was seized repeatedly, and torn. By passing the finger behind the veil of the palate for the purpose of exploration, which can be readily done, I found a body so large projecting beyond the posterior nasal orifice, into the upper part of the pharynx that it was at once evident that it could never pass through the nostril. I then seized it as firmly as possible with the polypus forceps, and instead of pulling it forward, thrust it backward,

when its attachments were broken, and it was removed through the pharynx, In this case a gush of blood followed, which had not been anticipated, and which, for a moment, threatened to suffocate the patient. Under the stimulus of necessity, I seized a piece of sponge and passed it behind the soft palate, pressing it into the posterior orifice of the nostril, so as to plug it perfectly, drawing it into the nostril with the forceps carried through that cavity.

I have since operated upon two cases of the severest forms of nasal polypi projecting into the pharynx, in a similar manner, viz: by seizing the anterior part with forceps, and pressing backward until the back part could be reached with another and much larger pair of curved forceps, with which it was firmly grasped and torn away by a gradual but firm rotary movement. In one of these cases the polypus immediately after removal weighed eight ounces. The hemorrhage was terrific but was stopped by filling the nostril from behind with pieces of sponge. This method of plugging the nostril seems to be little known, but is not difficult to accomplish in the adult, in the natural state of the parts. When the pharynx has become accustomed to the presence of a polypus, and the soft palate has been pushed downward and forward, nothing can be easier.

This is a point of importance, for the motive which induced the older surgeons to adhere to the ligature, was undoubtedly the fear of hemorrhage. The only danger which need be apprehended from the use of sponge, in this way, is that of its falling into the air passages, as happened in a case reported by Prof. Peaslee, in which, however, the sponge was, I think, introduced from before.

By this means I am sure that some polypi may be safely extracted which otherwise resist all attempts, unless the jaw itself, or the soft or hard palate, or both, be divided. I do not, however, assert that this is always the case, since the extent of the attachment, and its firmness, might offer too great resistance. If this should be found, on trial, there still remains the method resorted to by professor Letenneur, of the School of Medicine of Nantes, who, in a case of this kind,

having failed to pass a ligature around the pedicle, resorted to the use of forceps similar to the *enterotome* of Dupuytren, and by fixing it successively upon different portions with the screw, each in turn was destroyed, the pedicle being at last seized. The dangers incident to the removal of the upper jaw, and even to the incision of the palate by the method of the *boutonniere* are sufficient to induce the surgeon, before proceeding to the application of either of these methods, to use with care all the resources of art for the purpose of effecting his object in a manner less severe. It is probable that more perfect instruments may yet be produced, which will render this object of more easy attainment.

REPORT OF MEETING

OF THE

CHICAGO ACADEMY OF MEDICAL SCIENCES, MARCH 2ND, 1860.

The Academy assembled in their New Rooms No. 95 Washington Street, and being called to order by the President, the proceedings of the last meeting were read, accepted and ordered to be recorded. The Secretary read a report from the Council Committee appointed to make purchase of furniture and fittings for the New Rooms. Submitting, therewith vouchers for moneys expended, which was also accepted, and ordered on file.

Dr. HAMILL read a paper on Sulphate of Quinine and some of its effects, a copy of which the Academy requested for publication.

Dr. INGALS thought the remedy was generally given in too large doses, thereby proving in some cases a local irritant and developing any latent typhoid tendency.

Dr. HAY agreed with the last named gentleman in recommending quinine in small doses frequently repeated in the treatment of intermittent, did not consider it a local irritant.

Dr. RAUCH did not believe quinine to be a local irritant,

but thought that it must necessarily be absorbed in order to produce its physiological effects.

Dr. O. Smith thought that the remedy in question, must act by means of absorption, upon the nervous system as a stimulant contracting the arteries and increasing the fullness and hardness of the pulse.

Dr. Holmes asked for information regarding the efficacy of small doses, and the actual quantity necessary to be administered.

Dr. Wickersham thought 14 to 16 grains the smallest quantity necessary to be introduced into the system in order to overcome an attack of the intermittent.

Dr. Macalister related the treatment of two cases illustrating the efficacy of small doses of quinine, preceded by a mercurial cathartic after large doses had proved inefficient.

Dr. Byford thought that in the cases related by Dr. Macalister, much allowance was to be made for the influence of change of climate and season, and related a summary of the changes which had taken place in the mode of using quinine during a period of twenty years within his experience; he considered the remedy to possess in addition to its other qualities, diaphoretic properties, and favored its administration in large doses—3 to 5 grains. He considered the absence of uric acid in the urine to be attributable rather to the diminution in the waste of tissue than to defective elimination. He believed that quinine was an irritant relatively, frequently as much so in small as in large doses, and that its effects were generally too evanescent to prove injurious. He had seen no harm nor any good result from its use in the treatment of typhoid fever, and believed that in order to the production of its full therapeutic effect, a certain specific quantity was necessary to be introduced into the system which was only to be determined by experience.

Dr. Wickersham considered the remedy decidedly productive of injury to the brain when incautiously administered.

Dr. Ratch favored the administration of quinine, in small doses, continued for a longer period of time, and thought that the changes in the mode of practice in different localities

might be accounted for by changes in the types of disease. He believed that the remedy was useful in typhoid fever, as a tonic during convalescence, but at no other time during the continuance of that disease.

Dr. Chas. G. Smith considered quinine to be an anti-periodic simply, acting through the medium of the nervous system, and was as appropriate a remedy in one form of periodical disease as in another; hence its efficacy in neuralgia. He did not agree with Headland in his theory that it supplied a deficient element to the blood.

Dr. Bloodgood had commenced in the early portion of his career, with the use of small doses of quinine and had found them entirely successful. Some years afterwards he, in common with other practitioners in the same locality, had found it necessary to increase the doses in order to produce the desired effect. He did not believe the remedy a local irritant, did not approve of small doses, and always waited for complete intermission before using it at all.

Dr. Graham strongly advocated the use of large doses of quinine, had seen many lives sacrificed by the too sparing use of that remedy. He considered it necessary to place the system thoroughly under its effects, and speedily, in the severer form of intermittant, in order to insure the life of the patient.

Dr. Hamill had used carbonate of ammonia, and also prussiate of iron, in conjunction with a diminished portion of quinine, and had found them valuable and efficacious substitutes for a portion of the usual quantity of the alkaloid used.

Dr. Ingals inquired at what periods typhoid fever had been first observed in the West, and in what localities these observations had been made.

Dr. Byford had seen it first in Southern Indiana, in 1843.

Dr. Ingals, in Central Illinois, in 1847.

Dr. Rauch, in Iowa, in 1854.

Dr. Bevan had seen cases of typhoid fever fabricated by the use of quinine, and did not believe that this agent ever orginated or kept up intermittent fever, which idea he thought to be an error originating with Hahnemann and his followers.

The debate was continued by Drs. H. Bloodgood, Graham, Rauch, Orrin Smith, and Ingals.

Dr. HAMILL declined having his paper published.

Reported for the *Chicago Medical Journal*, by

WALTER HAY, M. D., Secretary.

Miscellaneous.

VARIOLA AND VACCINA.

Unsuccessful attempts to produce Variola in the Cow, by Inoculating with the Virus of true Variola. Perfect success on using the ordinary Vaccine Virus. By EPHRAIM CUTTER, M. D., Woburn, Mass.

Acting upon the commonly received opinion both of the public and the profession—namely, that cow-pox is small-pox modified and mitigated by a transmission through the system of the cow—it would be natural for any physician to expect to procure pure primary vaccine virus by simply introducing into the system of the cow the virus of variola from the human subject.

It was under this conviction that a series of experiments were conducted upon about fifty kine. It is proposed to give an account of the same in the present paper.

Experiment 1.—Nov. 26th, 1859. Inoculated four young kine with variola-virus taken on November 19th, from one of my own patients, at about the eighth day of the eruption. Punctures were made with a lancet upon the hairless skin beneath the tail and near the vulva. The virus was intro-

duced upon quills and covered with isinglass plaster, as in the ordinary mode of vaccinating the human subject. At the expiration of a week, no effect like vaccination was produced. In fact, there seemed to be nothing more than a moderate inflammation, just such as would result from a non-specific puncture.

Experiment 2.—Dec. 27th. With variolus virus taken on the eighth day (Dec. 22d) of the eruption, by Dr. Luther Parks, Jr., of Boston, Dr. Alonzo Chapin, of Winchester, at my request, inoculated five kine. The writer inoculated seven including steers and heifers.

Punctures were made with a lancet, near the vulva or anus, and upon the teats. The quills, charged with the virus, were introduced, allowed to remain a few minutes, and then suffered to drop out. The operations were conducted with the greatest care, so that there should be no mistake. About five quills were used upon each animal in this as in all the other experiments. On the 31st of December a few of the spots presented to the feel a round and flat hardness, about half an inch in diameter. One spot had a central depression. This promised so much that it was very confidently expected that vaccine virus would be obtained. But the hope was illusory, for the spot did not pass through the normal stages of a vaccine pustule. On the contrary, it remained the same for more than a week, and then faded away. It was suggested by Dr. Chapin that the virus might possibly have been taken from a varioloid patient, (it sometimes being very difficult to distinguish between them,) and that thus the experiments proved nugatory. Subsequent experience, however, has not borne out the supposition.

Experiment 3.—Jan. 6th, 1860. Visited a patient of Dr. Toothaker's of Wilmington, sick with severe variola, and charged quills with matter. The eruption was at the seventh day. Inoculated seven kine with this matter, January 6th, 1860. In these cases the cuticle was abraded by scratches, made with a lancet, at right angles to each other, until the serum of the blood began to escape. The charged quill points were then rubbed upon the abrasions for a moment or two

No satisfactory results. To be sure, pustules, or something that looked like pustules, were obtained. They were umbilicated, and some of them hard to the feel, but no lymph could be got.

Experiment 4.—Procured some quills charged with variolous virus, from Dr. R. L. Hodgdon, of West Cambridge, on January 6th, and on January 7th inoculated three young kine with the same. The mode was the same as in experiment 3d. No satisfactory result.

Experiment 5.—Jan. 13th. Visited, with Dr. Drew, of Woburn, a small-pox patient under his care, and charged some quills in the usual way. Besides I charged some cotton threads, by rupturing pustules and imbuing in the lymph the threads for the distance of half an inch or more at their middle part. Within an hour of the procuring of this virus, the quills were inserted into several cattle by the usual punctures with the lancet. The threads were introduced beneath the skin by means of a needle. They were then drawn through to the point charged with the virus, and with this engaged under the cutis, the ends were tied, and the seton thus formed left in. The threads remained in for three days. Inflammatory action ensued. There was swelling, with soreness in the vicinity of the punctures. Upon removing the threads, however, these symptoms subsided. No normal pustule was produced. This essay was deemed almost an "experimentum crucis."

Experiment 6.—Jan. 18th. Went to Lexington and took quills and threads from a small-pox patient of Dr. Currier, in the same manner as was practised in Experiment 5th. These were used in inoculating four cattle on the 20th of January. These essays were without success, although the threads were allowed to remain a week.

Experiment 7.—Jan. 25th. Received by express, from Dr. John A. Lamson, of Boston, some variolous virus from one of the crew of the slave yacht Wanderer. This matter was selected with care, and the case was a well developed one. These quills were used upon four or five cattle.

At the expiration of a week, there was one pustule devel-

oped out of the sixteen or twenty punctures. Took what seemed to be lymph from this one pustule, and tested it, without success, upon another cow.

It is natural to expect, that after so many careful experiments, conducted without succes, the experimenter should begin to doubt. I questioned my ability to inoculate; but of this I was not convinced, as I had successfully vaccinated a considerable number of human subjects during my practice of medicine. Besides, I was told by some, who had tried the same experiments without success, that it could not be done; that cow-pox must be found in a natural condition.

About this time, Dr. Currier, of Lexington, in conversation with my father, Dr. B. Cutter, stated that within the past ten years he had seen some cases of the cow-pox, occurring in the natural way upon the cow; and he further expressed his belief that such cases must exist in our vicinity at the present time. We should look for them in young cows, just after their second calving, and for the locality of the eruption upon the udder, between the hind teats. One case he mentioned as having about one hundred pock upon a remarkably clear udder. He took a large number of quills from them, and vaccinated three persons with them, viz: himself and two "Irish" infants. He did not succeed in his own case, but the children "took" severely. The remainder of the quills were mislaid, and he lost the opportunity of any further trials.

I was led to examine quite a number of cattle, in different localities, to find this disease in the natural state. I was incidentally surprised to find that a majority of the cattle examined had upon the teats and udder a considerable variety of pustular and horny skin diseases, so that if it is thought (and such is the opinion of the public, I believe) that *purer virus* can be got from the cow than from the human subject, it is an easy matter to explode this idle theory. While conducting Experiment 7th, I found one cow with the hinder part of the udder covered with non-umbilicated pustules of the size and feel of a normal vaccine pustule.

Experiment 8.—I took the virus from the most developed of these pustules, and tried it on other cows. No infection

followed, thus proving (if the operation was properly performed) that this was not the true vaccine pustule.

Experiment 9.—A repetition of Experiment 8th, the matter being taken from a similar pustule near the vulva of another cow, and inserted into another animal. No infection resulted.

Experiment 10.—Still another cow was found with a disease upon the udder, simulating the natural disease. This ran its course in about a fortnight. There were pustules, non-umbilicated, full of white lymph. Vaccination with this lymph upon quills was tried upon another cow, and about a week later some of the crusts were rubbed up with water to the consistency of pus, and then pricked into crucial abrasions of the cuticle of a two-days'-old calf, by Dr. Chapin, and of a cow, by myself. These vaccinations have not yet had time to develop themselves. If they do not take, should we not be justified in calling these cases the spurious cow-pox referred to by Jenner?

Experiment 11.—Jan. 20th, 1860. Vaccinated four kine with ordinary vaccine, such as I was using in vaccinating the human subject.

Jan. 24th.—The spots all look as if taking.

Jan. 26th.—On two of the four kine, umbilicated pustules, having, in one instance, a whitish summit, and in other instances being more swollen, with summits less white.

Jan. 27th.—One of the kine has three spots, half an inch in diameter. Bluish color, well marked. Took a large number of quills, and on the same evening sent specimens to the members of the Middlesex East Society, and to other physicians who had assisted in procuring variolous matter for the purpose of experiment.

Jan. 28th.—Dr. Chapin visited the animals. He was assured of the abnormal characteristics of the *quasi* pustules procured by inoculation, and was satisfied with the normal appearance of the pustules produced by the vaccination.

Experiment 12.—Jan. 23d, 1860. Vaccinated two cows with vaccine virus from a child, on the seton plan. Did not take. Failure probably due to the imperfect moistening of the threads.

Experiment 13.—Jan. 24th, 1860. Vaccinated, on the seton plan, four kine, with virus received by mail from Dr. J. D. Mansfield, of South Reading. No other results ensued than what would ordinarily be expected to follow the introduction of an uncharged thread.

Experiment 14.—Jan. 28th. Dr. Chapin vaccinated two kine with the virus he ordinarily uses upon the human subject. Both took well, and a large number of quills were obtained from them, which were used with general success.

Since the last experiments, I have often successfully vaccinated kine, both with the crust and the quill. The pustules have generally been large, and have matured upon the eighth or ninth day after vaccination. They vary in size somewhat, being generally very large, and not small. In some, a characteristic blue color of the pustule and vicinity is observed. This happens especially when the seat of vaccination is upon the part of the labium where the skin merges into the mucous membrane. No constitutional effects upon the cows have been noticed.

From the account given in a late number of the *Boston Medical and Surgical Journal*, of the experiments of Dr. Martin, of Attleborough, Mass., some years ago, and the most unfortunate results that followed, I tremble at the risks I have been running, for if quills had been obtained they would have been used. It is only an instance of an overruling Providence. However, I am more confirmed, by Dr. Martin's account, in my opinion, derived from the above-described experiments, that *vaccinia is not varioloid*, but that it is a *distinct affection*. I cannot explain the experiments of Dr. Adams, of Waltham, Mass., nor of Mr. Ceely, nor of the Russian physician, who profess to have succeeded in inoculating cows, and thus procuring the vaccine disease. I only know that Dr. Chapin and myself did not succeed. If some more successful operator should report and annul my assertions, I shall be very happy, as all that I desire is the truth.

Three modes of introducing the variolous matter into kine were used—(inoculation.)

1. By quill and puncture with lancets.

2. By rubbing the charged points of quills upon crucial abrasions of the hairless cutis.

3. By introducing, in the form of setons, threads charged with the variolous virus. This is the easiest and most expeditious way of inoculating or vaccinating kine. There is but one struggle with the animal, and, once in, it stays in.

Vaccination on the cow has been practised in the following ways:

1. By the seton; this was tried twice and was not successful.

2. By quills. These, if fresh, generally succeeded.

3. By pricking into crucial abrasions of the cuticle, with a lancet, portions of a scab dissolved in water, until it is of the consistence of a thick paste. This has been uniformly successful upon man or beast; more so than any other mode I have practised.

I think I am justified in asserting that *any one can procure a vaccine pustule on the cow by vaccination*, as easily as it can be procured upon the human subject. This is the mode in which I obtain "*vaccine virus* from the cow."

The question has been asked whether the virus from the cow, thus obtained, is any better than the ordinary virus in use. To this I would reply, than in my opinion it is no better. A few statistics may throw light upon this. Out of nine primary vaccinations noted, with virus from the cow, six took the first time and three the second. Out of fifty-three secondary vaccinations noted, thirty-nine took the first time, thirteen the second time, and one the third time. One of the primary vaccinations taking on the second trial, occurred in a child half an hour old. One of the secondary vaccinations taking on the first trial, occurred in a lady 91 years old, who had been repeatedly vaccinated unsuccessfully. Another of these was vaccinated during the prodomic symptoms of varioloid, and both vaccinia and varioloid ran through their stages contemporaneously.

On the other hand, the writer vaccinated a child with quills from another infant, and they did not take. On the second trial, quills charged with virus from the cow were used. No effect. On the third trial, the third mode of vaccinating, with

a scab from the cow, was employed. No result. On the fourth and final trial, the same mode of vaccinating, with a scab from a *child*, succeeded perfectly.

Some of the secondary vaccinations with virus from the cow procured pustules normal in appearance, and of a large size, despite a good scar of the primary vaccination. Constitutional effects have been produced in some cases. However, equally good pustules and similar constitutional effects have been produced, at the same time, by the ordinary virus in use.

Another thing—the ease with which the vaccine pustule is produced in the cow ought to give the profession confidence *in the matter in general use*. Thus the idea that it has "run out" by successive transmissions through human subjects is not supported by the present experiments.

Again, the idea that the vaccine disease is peculiar only to certain districts in Wales is not founded upon fact, as it has been repeatedly observed in this country. It seems idle, then, to send to Europe for vaccine virus, when we have it at our very doors.

To conclude: The object of the present paper has been to show that vaccinia is not varioloid, or cow-pox modified small-pox. It has been attempted to prove this by the unsuccessful attempts to produce a normal vaccine pustule by inoculation, *while upon the very same animals, by vaccination with the virus in ordinary use*, the normal vaccine vesicle has been got easily. According to the authorities consulted, it is still a mooted question in regard to the subject in hand. But Von Bibra says distinctly that the cow-pox and the small-pox are two different diseases. The assserted fact that persons who have had the small-pox have been successfully vaccinated, seems also to substantiate our position.—*Boston Medical and Surgical Journal.*

DO BAD SMELLS CAUSE DISEASE?

The tendency of the human mind to rest satisfied with any belief that is authoritatively asserted, is too well known to require any comment. Philosophers of all kinds are no more exempt than other people from this easy style of dealing with difficult problems. Medicine is, we think, especially chargeable with cherishing pet answers to questions that force themselves unkindly on her; and we think that the way in which she has made up her mind as to the causes of various kinds of fevers is an example of this style of cutting the Gordian knot.

Of late years, it must have struck all our readers that pig-styes, dirty pools of water, open privies, ash-heaps, etc., have been declared highly criminal, and on all occasions even adjudged guilty of producing any kind of fever or bowel complaint that may have broken out in the neighborhood. If a child happen to suffer typhus in a farmhouse, it is the mixen at the end of the barton that caused it. If an epidemic of English cholera befall a village, it is traced to the duck-pond by the road-side. If in a wealthy household the inmates are stricken with diphtheria, some open sewer close at hand, has, as a matter of course, been the cause. So accustomed are we to hear this sort of reasoning resorted to on all occasions, that one feels a little difficulty in expressing doubts as to the certainty with which the effect is unhesitatingly traced to its cause. Nevertheless, we think there is at least sufficient evidence to cause reflecting minds to pause ere they give in their adhesion to the general opinion, and thus shut their eyes to further research and inquiry. Dr. Watson, has, we know, stated it as his distinct opinion, "*that neither animal nor vegetable decomposition is sufficient to generate fever of any kind;*" and the researches of Dr. Guy, and other observers, have certainly gone some way to support that opinion.

Dr. Guy, in his very interesting contribution to the *Journal of the Statistical Society*, on the health of Nightmen, Scavengers, and Dustmen, gives us a mass of statistical facts which, it must be confessed, run counter to the generally received opinion,

that foul animal or vegetable emanations are the fruitful source of disease. This class of men, without doubt, spend their days in the very midst of filth of all kinds. He says:

"In most of the laystalls or dustmen's yards, every species of refuse matter is collected and deposited—night-soil, the decomposing refuse of markets, the sweepings of narrow streets and courts, the sour-smelling grains from breweries, the surface-soil of the thoroughfares, and the ashes from the houses."

This heterogeneous mass the scavengers or "hill" people have to sort or to pass through sieves, so that the emanations arising therefrom must be brought into intimate relation with their lungs and skin. If fever and diarrhœa are so clearly traceable to the vicinity of these so-called noxious materials, surely the scavengers ought to be a poor, fever-stricken race. A medical examination, however, of this class of workmen as compared with brickmakers and bricklayers' laborers, proves that the scavenger is comparatively exempt from disease. Thus, among a number of men examined in each of the three classes, it appeared that the numbers attacked by fever were, among the scavengers, 8 per cent.; among the bricklayers' laborers, 35.5 per cent.; and among brickmakers, 21.5 per cent.

This result seems extraordinary enough; but it may be argued that these men do not live in the laystalls or dustyards, and therefore that their exemption from fever may be attributable to this; but what can be said if the master dustmen and their families, who live all their lives in the midst of these heaps of so-called fever-nests, are healthy. Dr. Guy says:

"I do not think that, whether in town or country, such another body of men (as master dustmen) could be brought together, except by selection; and it is not going too far to assert of them that, if the comparison were limited to the inhabitants of London, or our large towns, no score of selected tradesmen could be found to match the same number of scavengers brought casually together."

Unless we suppose that the scavengers get used to this so-called miasmatic atmosphere, or that after a time it no longer affects them, we cannot see how the foul emanation theory

can hold water. Nature cannot work in one place differently from another. Night-soil must be just as deadly in an open yard in London as in the country. But here we have the experiment tried on a larger scale, of a whole class of men subjected to foul emanations, and yet they are far from being an unhealthy race, and are not nearly so prone to fever or bowel disease as the brickmakers' laborers.

We are far from wishing it to be understood, however, that we do not consider foul emanations as dangerous or baneful under any circumstances. In our opinion, they become noxious when much concentrated. Our houses, for instance, are built on the principle of a bell-glass; and our drains and privies, and all other impurities, if allowed to give off a deleterious miasma, most certainly do become most virulent sources of disease. But, in the open air, we think it very doubtful whether these emanations are ever the cause of injury to man.

Let us watch with Dr. McWilliam a still more gigantic experiment on the health of the Thames waterside people, which has been going on for years, and is still proceeding. The whole sewerage of two millions and a half of people, has, within the last ten years, been turned into the metropolitan stream. Year by year its waters have become more contaminated, and its smell more disgusting. It should follow that the health of the waterside community is proportionally decreasing; that febrile complaints, cholera, and diarrhœa, are alarmingly on the advance. But what is the real state of the case? Dr. McWilliam, in his Report for the year 1858, on the health of the Water Guard and Waterside Officers of Her Majesty's Customs, says:

"As respects bowel affections, in which I include diarrhœa, choleraic diarrhœa, dysentery, etc., the types of those forms of disease, which in this country noxious exhalations are commonly supposed to originate, we find the additions during the four hot months of the past year from this class of complaints 26.3 below the average of the corresponding period of the three previous years, and 73 less than those of 1857."

The quantity of putrescent animal and vegetable matter in

the Thames has been going on increasing; but the illness generally attributed to the emanations arising therefrom has been decreasing! We know that many will urge that all the combustibles (if we may use the term) being thus accumulated, it only requires the match to be applied, to find epidemics raging like wildfire. But the year before last, cholera did break out on the banks of the Lea, and there died out, apparently from want of sustenance. This year, according to the *Lancet*, cholera, veritable Asiatic cholera, has been on board the Dreadnaught; yet it has not spread, and there seems no likehood of its doing so for this season at least. As Dr. McWilliam truly says, "It is nowhere sustained by evidence that the stench from the river or docks, however noisome, was in any way productive of disease." It is true that one waterman, in June last, was said to have died of Asiatic cholera, and that his death was ascribed to river-poison; but, as the eminent observer whom we have just quoted, correctly remarks, "it is opposed to all analogy, and to the usual order of nature, and therefore unphilosophical, to suppose that a cause so extensively diffused should have been so singularly limited in its effect."

Greatly doubting, as we do, the alleged ill effects of foul emanations in the open air upon human life, we nevertheless do not think that the crusade against filth should for one moment be relaxed. A bad smell may be no more unhealthy than a bad taste; but we should, if possible, avoid the one as much as the other. What we should, above all things, avoid, however, is the falling into the error of supposing that bad smells are the indubitable sources of many puzzling diseases, and of thus hardening our minds against investigations of the kind which were instituted a year or two ago by Dr. Barker, and which, when completely carried out, will enable us to decide what the noxious principles are which make all the difference between an unpleasant and a malarious odor.

Editorial.

BOOK AND PAMPHLET NOTICES.

A Medico-Legal Treatise on Malpractice and Medical Evidence; Comprising the Elements of Medical Jurisprudence. By John Elwell, M. D., Member of the Cleveland Bar. New York and Cleveland: Alfred Elwell & Co., 1860. Pp. 588. From the publishers.

This book appears to be a full and perfect treatise on the subjects of which it professes to treat.

In how far it is correct in the rules which it lays down, we are unable, from a personal examination, to say. It has, however, received the endorsement of some of the most eminent legal men, as well as of physicians, in this country, and from a cursory examination it appears to be full, accurate, and prepared with care.

Such a book should be in the hands of physicians generally, who are too often not aware of the nature of the responsibility which they assume in accepting the charge of surgical cases.

A Practical Treatise on Operative Dentistry. By J. Taft, Professor of Operative Dentistry, in the Ohio College of Dental Surgery. With eighty illustrations. Philadelphia: Lindsay & Blakistone. Chicago: Jones & White, Dental Depot.

The author of this book seems less anxious to be regarded as the originator of the theories he adopts, and the practice he recommends, than to give a well-digested and systematized *resume* of the theories of dental diseases, as adopted by the

best Dental Pathologists, and the practice prevailing among the better class of dentist in treating these diseases.

In a brief but comprehensive "Introductory," he describes the varies kinds of *tartar* that deposits upon the teeth, and the best method of removing it; the nature, cause, and effect of atrophy, exostosis, denuding of the enamel, chemical abrasion, necrosis of the teeth, &c., &c.

He then takes up and describes very minutely, the characteristics and causes of "caries of the teeth."

The causes are considered under two general divisions, Predisposing and Exciting. Among the former are hereditary defects—functional derangements, which prevent a proper elimination or appropriation of materials necessary for the perfect structure of the tooth—vitiated secretions of the mouth—badly performed dental operations, and the like.

Among the most active of the exciting causes, all decomposition of animal and vegetable matter between and around the teeth—contact of hydrochloric acid with the teeth, consequent upon the eructation of the fluids of the stomach of dyspeptics—medical preparations, and condiments containing acids—acids formed by the decomposition of substances in the mouth, in consequence of a constant galvanic action going on between different metals used in filling natural teeth and plates for artificial teeth. The author then passes on rapidly, making some valuable suggestions in regard to the treatment of superficial or slight caries of the teeth, and comes to the important subject of *filling teeth.*

In discussing the merits and demerits of the various materials used for this purpose, gold and tin are considered to be the only ones of much real value. Amalgams or cements, which must always contain mercury, and are usually made by mixing mercury, tin, and silver, together, are very properly regarded as "*vile compounds*, never to be used as fillings for the teeth.

Then follow descriptions and cuts of instruments necessary and proper for preparing cavities and introducing fillings—forming of cavities, and the proper method of introducing and finishing fillings—treatment of exposed nerves—setting

pivot teeth—necessary instruments for, and the method of using them in extracting the various classes of teeth and roots—treatment of undue hemorrhage after the extraction of teeth, etc., etc.

It will be seen from this somewhat detailed, though quite imperfect summary of contents, that this work is just what its title indicates. "*A Practical Treatise on Operative Dentistry.*"

Dr. Taft evinces an intimate and practical knowledge of what he is writing about, and in all cases uses such simple and well chosen language that there is no mistaking the idea he wishes to convey—making this one of the most valuable books ever published for the use of students of Dental Surgery. A.

I. The Diagnosis, Pathology, and Treatment of Diseases of the Chest. By W. W. Gerhard, M. D., one of the Physicians to the Pennsylvania Hospital, etc. 4th edition, revised and enlarged. Philadelphia: Lippincott & Co.; 1860. Pp. 448. From S. C. Griggs & Co.

II. A Practical Treatise on the Diagnosis, Pathology and Treatment of Diseases of the Heart. By Austin Flint, M. D., Professor of Clinical Medicine, etc., in the New Orleans School of Medicine, etc. Philadelphia: Blanchard & Lea, 1859. Pp. 473. From Keen & Lee.

The work of Dr. Gerhard has been long before the public, and its character is now well established.

The present edition, however, contains about one hundred pages of new matter, and many additions relating to Pneumonia, Pulmonary Consumption, and Diseases of the Heart. The work is concise, accurate, and well adapted to supply the wants of the student and the practitioner. We extract passages referring to the use of cod liver oil and the phosphates, which are of particular interest:

"The following may be given as the results of the use of cod liver oil in the medical wards of Pennsylvania Hospital during the last six months, (1849–50:)

1st. *Of the Oil.*—That the light-colored oil can be taken without difficulty by patients whose stomachs have steadily rejected the brown oil.

2d. *Of the mode of administration.*—That a few of the patients have taken the oil without any adjunct to disguise its taste. That its nauseating properties are corrected by its administration with milk; but that its taste is most effectually disguised by the froth of porter.

3d. *Of the time of its administration.*—As a general rule it has been taken before meals, but in four instances where it was not tolerated before meals it was readily taken after meals.

4th. *Of diarrhœa as a contra-indication to its use.*—The existence of diarrhœa is not a positive contra-indication to its use. In three instances in which patients were thus affected, no increase of the symptoms was produced by its use, and no diminution by its abandonment. In a fourth instance, when the diarrhœa had previously existed, the discharge appeared to be increased by the exhibition of the oil, and abated with its withdrawal.

5th. *Of its effects in cases of phthisis pulmonalis.*—Patients using the oil have increased in flesh, in weight, and strength. While using the oil, their cough and expectoration have diminished; that with some, hectic and rigors have entirely disappeared. Six of them have been so much benefited as to leave the hospital and resume their former occupations. In one instance, a patient who entered the hospital with cough, copious purulent expectoration, extreme emaciation, inability to leave his bed, and with the physical signs of a cavity under the left clavicle, after six months use of the oil, left the hospital weighing 140 pounds, with little or no cough, no hectic or rigors, and with an almost entire absence of expectoration, the physical signs having greatly diminished.

6th. *Of the physical signs.*—The improvement of the physical signs is not coincident with that of the general symptoms.

7th. *Of its use in general scrofula.*—In scrofulous diseases where there was no reason to suspect the existence of pulmo-

nary tubercles, the improvement of the patient's health has been very decided.

8th. *Of congestion of lungs as produced by cod liver oil.*—There has been no decided evidence of such a result following the use of the oil in the preceding cases. [Two patients of the twenty, while using the oil, had severe attacks of hæmoptysis, but there was no reason to refer them to the use of the remedy.]

9th. In those cases which have terminated fatally, the appetite, the nutrition and strength of the patient appeared for a time to be decidedly increased; the life of the patient seemed to be in this manner, temporarily protracted; but for a few weeks immediately preceding death the remedy seemed to have entirely lost its value.

10th. *Length of time, etc.*—To be of any decided permanent benefit, its use must be steadily persisted in. It should be continued even after the most striking symptoms of the disease have, in a great measure disappeared.

* * * * * * *

Another mode of treating phithisis which has attracted much notice within the last few years is the use of different phosphatic salts, given in connection with one another. These are the phosphates of iron, soda, lime, and potash. This plan was proposed by Dr. Churchill, and was founded on the supposition that the addition of these salts to the blood would enable it to withstand the tendency to tuberculous deposit. I have been chiefly in the habit of giving these salts simply mixed with water, directing the patient to shake it up before taking it, so as to suspend the phosphate of iron, which is of course insoluble. The mixture is made according to the following formula:

℞.—Sodæ phosphat, ʒ iv; Calsis phosphat, ʒ ij; Potassæ phosphat, ʒ i; Ferri phosphat, ℈ ij; Aq. Rosæ, ℥ vi.—M.

S. A teaspoonful after breakfast and dinner, first shaking the bottle. If the substance is well shaken, the phosphate of iron may be of course sufficiently suspended to be taken in a proper dose.

Mucilage should not be added, as it would soon spoil. My

friend Dr. Jackson has been is the habit of giving the same medicine in sirup, making a more uniform and prettier preparation, but one which I do not like so well as a simple suspension of these salts. If, however, this preparation should be preferred, the best mode of making it is one given by Mr. Parrish in the Am. Joun. of Pharmacy for 1857, vol. xxix. p. 572.

The use of these phosphates became very general in Philadelphia, but has much diminished within the past year or two. This comparative disuse of them has arisen simply from the doubt that remained in the minds of those who employed them as to their utility."

The volume of Dr. Flint is new. Its scope and object are sufficiently shown by the following extract from the preface:

"As regards the order in which the different diseases are considered, the plan usually pursued may be said to be synthetical, inflammatory affections being taken up first, and afterward the lesions which are, to a considerable extent, the results of inflammation. A method which may be distinguished as analytical, has appeared to the author preferable. Pursuing this method, the work commences with the consideration of organic affections. Enlargement of the heart, occurring often consecutively to other lesions, takes precedence. To this subject the first chapter is devoted. Lesions affecting the walls of the heart naturally come next in order. These constitute the subject of the second chapter. Valvular lesions are then considered, occupying two chapters, and a chapter is devoted to congenital malformations. Several affections which are incidental to diseases of the heart, are treated of in a distinct chapter. Then follow the inflammatory affections, and, afterward, functional disorders of the heart, three chapters being allotted to these classes of disease. Finally, thoracic aneurisms, which claim considerations in connection with diseases of the heart, are made the subject of the concluding chapter."

In regard to the merits of the work we have no hesitation in pronouncing it full, accurate, and judicious. Considering the present state of science, such a work was much needed. It should be in the hands of every practitioner.

Without intending to enter into the discussion of any points concerning which a difference of opinion might exist, we extract our author's views on the hygienic and medical treatment of certain valvular lesions, which we deem of importance.

"Undue excitement and overtasking of the heart induce weakness and favor dilatation. The muscular power here, as in other situations, is exhausted by too great exertion, and the walls yield more readily to distension, under these circumstances, from the accumulation of blood within the cavities. The causes, already referred to, which excite unduly and overtask the heart, viz: excessive muscular exercise, mental excitement, the intemperate use of alcoholic stimulants, etc., are, therefore, to be avoided with respect to the second, not less than the first object of treatment. Exercise, however, within certain limits is, highly important with a view to the preservation of the power of the heart's action. Patients affected with obstructive or regurgitant lesions, will retain a compensatory vigor of the heart, and the epoch when dilatation succeeds hypertrophy will be postponed for a longer period, by habits which involve a judicious amount of exercise, than by a life of complete repose. Active occupations, whether pursued as a calling or for amusement, or with reference merely to exercise, should not be abandoned. Persons under the necessity of performing daily manual labor will do better to continue to work, so far as they are able without inconvenience, than to become fixtures in the wards of a hospital. They who are above this necessity should either follow some active pursuits, or engage in sports which demand a certain amount of physical activity. Indolence or inaction of the muscular system tends to produce weakness of the heart and favors fatty degeneration, thereby contributing to the production of dilatation rather than hypertrophy. The rules which should govern exercise have already been considered in connection with the treatment of hypertrophy, to which the reader is referred.* These rules are applicable to cases of valvular lesions, with or without hypertrophy.

* Chap. I, page 72.

They are, of course, not to the same extent applicable to cases in which the lesions have already led to dilatation.

The diet suited to obviate a tendency to weakness and dilatation is that best adapted to healthy nutrition. Healthy nutrition, and thereby the muscular vigor of the heart, require blood rich in nutritive materials. A poor and insufficient diet tends to hasten the evils resulting from valvular lesions. The diet should embrace a fair proportion of animal food. Liquids should be taken sparingly, the object being to secure a good quality, but not to increase the quantity of blood. Restrictions, as respects fatty substances and those readily converted into fat, are important, if there are grounds to suspect a disposition to fatty degeneration. The articles of food should be adapted to the digestive powers. The action of the heart, as is well known, is liable to be disturbed through its sympathetic connection with the stomach, when digestion is labored or imperfect. Dyspeptic disorders will claim appropriate treatment. Tonics and stimulants, in moderate quantity, are indicated whenever the digestive powers are enfeebled. Exercise in the open air, within proper limits, is important with reference to its influence on digestion. Cheerfulness and mental recreation are desirable for the same end.

Opposite conditions of the blood alike tend to weakness and dilatation, viz: plethora and anæmia. If the blood be too abundant, and the red globules in excess, the heart is overtasked and unduly stimulated. Bloodletting, under these circumstances, may be appropriate. But it should be employed with discrimination and great circumspection, inasmuch as the impoverishment caused by its injudicious employment is a condition worse than plethora. In general, other methods of depletion, which are not spoliative, are to be preferred, viz: saline laxatives and diuretics, in conjunction with a dry diet. Anæmia is a far more unfavorable condition than plethora, and claims efficient treatment with chalybeate tonics, nutritious diet, etc. The symptoms referable to the heart, in some cases of valvular lesions, are, in a great measure, due to functional disorder incident to anæmia, and when the anæmic

condition is removed, all the symptoms may disappear. This fact should be borne in mind. The practitioner is liable to consider all the symptoms as resulting directly and exclusively from the lesions, and, consequently, is led to exaggerate the immediate danger from the latter. Patients who suffer much from palpitation, etc., when anæmia is conjoined with valvular lesions, may experience no inconvenience when the blood is restored to its normal condition. This is intelligible in view of the well-known fact that anæmia often gives rise to functional disorder of the heart when this organ is free from organic disease."

NEW MEDICAL JOURNALS.

The Cincinnati Medical and Surgical News, Edited by A. H. Baker, M. D.

This is what was the *Cincinnati Medical News*, now appearing in pamphlet form, with change of name, and is a very creditable publication of 32 pages, issued monthly.

The San Francisco Medical Press, Edited by E. S. Cooper, A. M. M. P.

The *Press*, the second medical journal emanating from the city of San Francisco, is a quarterly publication, containing 64 pages of printed matter, and is furnished to subscribers at two dollars per annum, payable in advance.

Chilblains — Mr. Duchesne-Duparc's Formula. — Mr. Duchesne-Duparc has kindly forwarded to us his receipt for chilblains, with some remarks on the treatment of this distressing affection:

℞ Liq. calcis, 4 oz.; liquoris ammoniæ, 1 ℥; spirit. minth. 4 ℥; tinct. saponis, ℥ 1. M. For embrocation night and morning, on the parts affected.—*Champonniere's Journal.*

Typhoid Fever—Nathan Smith, &c.—Dr. Bowling, of the *Nashville Journal*, for March, is anything but "genial." The good humored comments of "A," upon his proposed treatment of typhoid fever, have given rise to an exacerbation of unpleasant emotions alarming in the last degree. For the use of the term "inventor," which he re-produces in capitals, and garnishes with an exclamation point—

> "Which stands in state, with vacant wonder fraught,
> The pompous tombstone of a pauper thought."

We confess to have relied upon Ainsworth, Webster, and Johnson. It appears that our amiable critic relies for his definition upon the Patent Office—does he propose to take his medicines from or to the same quarter? We yield to no man in admiration for the talents and acquirements of Nathan Smith. He needs no eulogium from "A," neither from the senior editor of the *Nashville Journal*, although that senior editor claims peculiar powers of "writing up," whoever will bow to his behests. *Does Dr. Bowling understand?*

As a matter of history, every New Englander will recollect that from the great use of that particular article (buttermilk) by Dr. Smith, as an article of diet and diluent, in typhoid fever, his practice was familiarly termed "the buttermilk practice," by both opponents and friends.

We have yet to learn that it is necessary to endorse every particular of doctrine and practice adopted by any eminent medical gentleman, in order to show that we worthily recognize his merit. In all humility we confess that we do not even do this for the senior editor of the *Nashville Journal*.

A.

☞ The American Medical Association will hold its Thirteenth Annual Meeting at New Haven, on the first Tuesday of June, 1860. The Secretaries of Local Societies, Colleges, and Hospitals, are requested to forward the names of delegates as soon as they are appointed, to

Stephen G. Hubbard, M. D., Secretary,
New Haven, Ct.

The Illinois State Medical Society and the National Association.—At the last meeting of the Illinois State Medical Society a movement was made, looking to *reform* in the manner of electing the President of the National Association. A resolution relating to this matter was introduced, as was understood, at the instance of Dr. N. S. Davis, but did not pass. At present the Association has the right of choosing its officers from any part of the Union, although for obvious and proper reasons the Presidents have most frequently been taken from the State in which the meeting was held. Dr. Davis proposes to make a rule prohibiting such choice, and disfranchising the members of the profession in the particular State or city in which the meeting may be held, and urges his friends to rally and put it through.

This is an ingenious move. In the first place it might make his chances of election better at New Haven than they were at Washington and at Louisville, where he did not succeed. Secondly, if the Association should ever meet in this State it would prevent the election of any other person. If this resolution passes, the next move may be to invite the Association to Chicago, otherwise not.

It is melancholy to see so much attention paid to an unimportant matter, to the neglect of the scientific interest of the State and National Societies. But it is in accordance with the peculiar system of elevating the profession advocated in a certain set just at present.

For ourselves, we cannot but express a hope that our friends will, whenever consistent with their interests, attend these meetings, and that they will take pains to arrange, for the purpose of being communicated, any valuable facts or observations which may have occurred to them during the year. Thus interest may be added to the meetings, and value to the transactions.

☞ The annual meeting of the Illinois State Medical Society will take place on the third Tuesday of May, 1860.

MILWAUKEE, March 13, 1860.

To the Editors of the Chicago Medical Journal:

GENTLEMEN: I notice in the last number of the *Medical Examiner*, printed in your city that E. B. Woolcott, of this city, attempts to defend himself against the imputation resting upon him, of malpractice in the case of Page, the fireman injured at the Watertown accident, by raising a question of "medical ethics."

According to his own showing, he left Page as he found him. If it was a fracture why did he put on the mechanical power, and why did he leave it without the usual dressing?

If it was a dislocation, why did he not reduce it?

In regard to the question of ethics it is doubtful what claim Dr. Wolcott may have on the regular profession to be recognized. If, as is generally understood, he at one time left its ranks, and announced himself a disciple of Turner, author of the notorious book called, "Fallacies of the Faculty, and the "Chrono-Thermal System of Medicine," which he will hardly dare to deny—and if he has never publicly renounced this *ism*, it is but just that he should be called upon to *purge himself* of this contempt before appearing to urge a charge of violation of the code of ethics. The certificate of character volunteered by the *Examiner* is not sufficient. Let the Doctor himself say where he stands just now.

Respectfully,

MEDICUS.

☞ Any of our subscribers having a copy of "Todd's Cyclopedia of Anatomy and Physiology," can find a purchaser, if desired, by addressing the editors of the *Journal.*

☞ We are obliged to omit, until the next number, the names of the graduating class of Rush Medical College for the session of 1859–60.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. MAY, 1860. NO. 5.

Original Communications.

ARTICLE 1.

A CHAPTER OF ACCIDENTS.

AN OBLIQUE FRACTURE OF THE FEMUR—1½ INCH SHORTENING FROM PULLING OUT OF A LOOP OF ADHESIVE PLASTER—RUPTURE OF CALLUS AND RE-ADJUSTMENT AT THE END OF FIVE WEEKS—SPLINT KEPT ON SEVEN WEEKS FROM THE RE-RUPTURE—BONE BENT AFTERWARDS—BONE DRILLED FIVE OR SIX WEEKS FROM TIME OF BENDING, OR TWELVE OR THIRTEEN WEEKS FROM RE-RUPTURE—AFTER AN INTERVAL OF A WEEK, PRESSURE AND EXTENSION APPLIED, STRAIGHTENING THE BONE IN THREE DAYS—A LAW-SUIT FOR DAMAGES—NO VERDICT—REFERENCE TO AUTHORITIES ON SHORTENING—CASE OF DOUBLE FRACTURE—STARCH BANDAGE SHELL, AND A NEW WAY OF EXTENSION—REFERENCES TO AUTHORITIES ON BENDING OF BONE AND THE REMEDIES. BY DAVID PRINCE, M. D., Jacksonville, Ill.

James D. Reanch, a healthy boy 14 years of age, fell from a tree on the 3d of Octoher, 1859, receiving a simple oblique fracture of the upper portion of the middle third of the right femur. The direction of the fracture was from above, downward and outward, traversing a distance of three inches, measuring on the axis of the bone.

The limb was placed in Wilch's modification of Dessault's long splint. The extension was maintained by adhesive

plaster, several strips, each about an inch wide, making a loop on one side—a similar appliance upon the other side of the leg—the plaster extending from the knee two-thirds of the way to the malleola, and a cord passing from each of these loops, and fastening below the foot-piece of the apparatus. The counter-extension was maintained in the ordinary way, by means of a perineal band of muslin enclosing cotton, and fastening (each end of it) to the upper end of the shaft of the splint.

All things went on favorably for four weeks, when one of the loops of adhesive plaster pulled out, unnoticed by the attendant, thus removing all tension and allowing the bone to shorten an inch and a half.

This event surprised me, because I had supposed that, after that period, the consolidation, in a healthy boy, would prevent shortening from a relaxation of the extension. It seems however, that the consolidation was slow, as shown in the subsequent part of this history, but not so far behind the ordinary progress, but that this shortening was too great to be remedied by simple extension.

Rather than turn out a case one inch and a half too short, I determined to break up the callus; which, for reasons of policy, I did without previous notice to the family.

This re-fracture was five weeks and two days from the date of the injury, and was accomplished with the greatest ease. One hand was placed upon the seat of fracture, and the other under the knee, when with but little force applied under the knee, the fragments ceased their hold upon each other without any sound such as would come from breaking solid bony substance.

The limb was easily extended to its proper length, and kept so satisfactorily for seven weeks more, when the callous seemed to be very firm. It was considered safe to take off the splint and give the boy more freedom of motion.

On careful measurement from the superior anterior spinous process of the ilium to the internal malleolus, and again from the trochanter major to the upper extremity of the fibula, the

limb was found to be from a quarter to half an inch shorter than the other.

I gave the mother precautions not to allow sitting on a chair unless the foot was, at the same time, in another chair, the knee being stiff from confinement and involving of the muscles in callus, and that if the bone should be found to bend, to have the splint immediately re-applied.

I called as a matter of courtesy and precaution the next day, and found him dressed and sitting on a chair with his foot resting on a stool. He would not permit me to examine the limb, but my eye detected no deformity.

I dismissed the case from my mind, as a trouble ended, entirely satisfied with what I supposed the final result.

Three weeks afterwards a professional friend told me there was to be a consultation of Doctors over this case, and he thought I ought to be there. I thought so too, if there was anything the matter, and accordingly went uninvited, where I met three members of the medical profession and one of the legal. Rather ominous, thought I, but still ignorant of the case; I awaited developments.

Presently the boy came in upon his crutches, the foot hanging about three inches from the floor, and the thigh presenting a curvature of 20 or 30 deg.; such a deformity as could easily be recognized across a street.

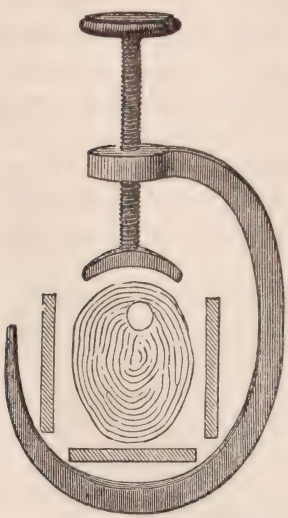
I was thunderstruck with the appearance, and the vision of the boy on the chair, as I had last seen him, immediately appeared to me. It appeared from subsequent testimony, in the trial for mal-practice, that he sat *frequently* on a chair, sometimes with a support under the foot and sometimes without any. The first suggestion I made to the consultation was the restoration of the form of the limb, by Brainard's method of drilling, and afterwards applying mechanical force, although I thought mechanical force alone might succeed; as in Norris' note to Ferguson's Practical Surgery, (Ferguson Practical Surgery, with Notes by Norris: Lea & Blanchard, 1845; Page 340,) it appears that Dupuytren has succeeded as late as the 120th day from the receipt of the injury.

This was seventy days from the date of re-fracture, and

twenty-one days from the time of taking off the splint, and there seemed a very good chance for succeeding by mechanical means alone, without first softening the callus by drilling.

I was not permitted by the family to apply this, nor even to see it done; and in the hands of another gentleman it failed after an application during two days.

Several weeks now elapsed without treatment, after which three perforations were made through the region of fracture, by Brainard's drill, Dr. English, assisted by Dr. Edgar, having the treatment of the case. After waiting a week, extension was applied by means of a long splint, to the distal end of which the mechanical power of Jarvis' Adjuster had been attached. Lateral pressure was made by a sort of tourniquet with a hook passing under a splint upon the posterior of the limb, and a screw pressing upon the convexity of the bone. It will be readily seen, that such an instrument would readily break down any bone, if the screw were forcibly turned.



The splint having been properly padded, the extension secured by adhesive straps, the counter-extension by a well cushioned perineal band fastening to the proximal end of the long splint, and the wooden ball of the screw of the tourniquet properly secured by gutta percha and padding, from pressing directly upon the prominent bony angle, extension was powerfully applied at the same time with latteral pressure, until a distinct yielding of the crooked bone was perceived. The lateral pressure was then slightly relaxed to avoid injurious pressure of the soft parts against the bone, but the extension was kept up unremittingly. In about three days the curvature disappeared, but as a precaution against accidental bending, the splint, with moderate extension, was kept on two weeks, and the thigh was after-

wards protected by a starch bandage. Dr. English thinks there is from one-fourth to one-half inch shortening; Dr. Edgar thinks there is no shortening at all.

Here the surgical treatment ends, with an excellent result, notwithstanding two accidents, one of shortening and one of bending.

Prosecution.—In the February and March term of the Circuit Court of Morgan County: Justice D. M. Woodson presiding; J. L. McConnel and H. P. McClure for the prosecution; D. A. & T. W. Smith and Cyrus Epler for the defence. Damages claimed, $5,000—the jury disagreeing.

The prosecution attempted to maintain—

First, That the shortening of the limb was prima facia evidence of unskillfulness.

Second, That the breaking over of the limb without apprising the family and obtaining their consent, and having a consultation of surgeons and obtaining their approval, was an outrage.

Third, That the thigh bone must have been in a crooked state when the splint was taken off, because it was proved, by two unprofessional witnesses, who saw the limb through the clothes, to have been crooked a few hours afterwards. Dr. English thought that if the bone had been of proper shape at the time of taking off the splint, it could not have bent in so short a time without great pain. There was no direct testimony on this point.

On the other hand, it was maintained by the defense—

First, That the shortening resulted from an accident.

Second, That the re-fracture was the proper remedy, and in view of the surgeon's responsibility he was justified in putting it out of the power of parents or adverse medical council, to hinder his restoring the limb to its proper length.

Third, That a curved condition of the limb, without shortening, was a mechanical impossibility; that a loose application of the apparatus which would allow curving would certainly have resulted in shortening; that the callus has very little if any sensibility and that the absence of pain during the curving is no evidence of the absence of the curving itself.

I have this moral to draw from this lesson.

I. Let the surgeon apprize the patient and friends of the difficulties of the case, and the uncertainty of a perfect result, whatever skill and attention may be exercised.

II. Let him instruct the patient and nurses in the working of the machinery, and direct them to give him immediate notice of anything giving way or seeming to go wrong.

III. Let him not only caution the patient to be careful of the limb after the chief support is taken off, but let him apply a starch bandage or other support to the limb, to be worn long after the patient goes about.

IV. Last, but not least, let him be sure that he has *disinterested witnesses* to what he may say and do, so that if any accident or unfavorable result occurs, he may be able to prove his points.

Had I been careful on this last point, I should, probably, not have been sued for mal-practice.

References.—I subjoin the following references for the advantage of any who may have the misfortune to require them, in justification of practice and its results, in treatment of fracture of the femur or in defence against ignorance, malice, and cupidity.

Length of time a splint should be kept on.—Dr. Charles A. Pope, Professor of Surgery in the St. Louis Medical College, in his deposition in this case, says: "Seven weeks would generally be sufficient time for wearing the splint, but the patient should not use the limb for several weeks more.

Miller's Principles of Surgery, Philadelphia edition, 1845, page 497, "At the end of the fourth or fifth week our substitutes (for provisional callus) may be discontinued."

Linton's Practical Surgery, with Notes by Norris; 1842; page 83—bottom: "At least six weeks."

Hamilton on Fractures, page 433: "Eight weeks, though it may be safe (to remove the splints, in some cases) in six weeks." * * * * "The extension may generally be relaxed as soon as the 28th day."

In my case an accidental relaxation just about this time, resulted in shortening.

Shortening.—Dr. Pope, in his deposition in this case, says: "It is impossible to prevent shortening in some cases of oblique fracture of the thigh bone, for besides the physiological primary or immediate contraction or shortening of the muscles, there is also a physiological subsequent shortening, caused by the effusion of plastic material between and among their fibres, whereby their extremities are approximated, just as water has the effect of shortening ropes which were previously dry."

"Malgaine broke the thigh bone of a rabbit, and a few ounces weight sufficed to overcome the first shortening. Ten days subsequently it required fourteen pounds to produce any elongation of the muscles, and then only after their complete rupture."

Dr. Pope thinks "the average shortening is from one-fourth to one-half inch."

In the admirable work on Fractures and Dislocations, by Dr. F. H. Hamilton, of Buffalo, recently published, will be found an almost complete list references to the recorded opinions of surgeons, with regard to the practicability of avoiding shortening and the results actually obtained. As this work is, or ought to be, in the hands of every man who is liable to be called upon to treat fractures, it is not necessary here to enumerate the references, for the list, commencing on the 398th page, is very long.

The opinion of Malgaine and Maclise, that union of oblique fracture of the thigh without shortening is impossible, is expressed in very strong language. Malgaine says "the thing is simply impossible."

Maclise says "Out of every six fractures of the clavicle or thigh bone, I believe that as the result of our treatment by the present forms of mechanical contrivances, there would not be found three cases of co-aptation of the broken ends of the bone, so complete as to do credit to the surgeon."

Hamilton (page 404) concludes "that in case of an oblique fracture of the shaft of the femur, occurring in an adult, whose muscles are not paralyzed, but which offer the ordinary resistance to extension and counter-extension, and where the ends of the bones have once been completely displaced, *no*

means have yet been devised by which an overlapping and consequent shortening can be prevented."

* * * * * * *

"When, in consequence of displacement, overlapping occurs, the average shortening in simple fractures, where the best appliciances and the utmost skill have been employed, is about three-quarters of an inch."

This corresponds very nearly with the statistics of the New York Hospital, published by Dr. Lute, and quoted by Hamilton, in his book, and also in his Report on Deformities after Fractures, in the 10th volume (1857) of Transactions of the American Medical Association.

In addition to the opinions of American surgeons, quoted in the work of Hamilton, the opinions of Drs. Trowbridge Barnes, Burwell, and Austin Flint; also, that of Dr. Willard Parker, of New York, are given in the Report on Deformities after Fractures, page 271.

Hamilton gives a sufficiently extensive list of those confident surgeons who claim to have treated oblique fractures of the thigh without any shortening or deformity whatever, and especially refers to Liston, who says, (Liston's Practical Surgery, by Norris, 1842, page 86,) "By adopting the straight position, the surgeon has it *fully* in his power to preserve the limb of its original length and proper contour."

Notwithstanding this confident language, any one of any experience in the treatment of these injuries must see at a glance that the use of the long splint, as figured in Liston's book, having no means of constant extension, except by drawing from time to time upon the counter-extending band, must result in some degree of shortening as the rule; and Hamilton (page 403) quotes from Gamgee's work on the starched apparatus, (London, 1853, pages 54 and 55,) to prove that in the practice followed by Liston himself, in the University College Hospital: "The patients admitted with broken thighs or legs, were frequently discharged with manifest deformity."

Before leaving this subject of shortening, I will say, with reference to the starched bandage splint, that I have used it

with great satisfaction in connection with permanent extension by means of the ordinary long splint, but I should not dare to trust the starched splint alone where the fracture is oblique. In one instance I used a method of extension which may, perhaps, be new.

Having been called in the middle of the night, several miles into the country, to see a patient who had fallen from a tree, and received an oblique fracture of the femur in its lower third, in a direction from above downward and inward, terminating in the upper part of the internal candyle, and another fracture of the same bone, at the junction of the middle and upper thirds, and having no appliances with me whatever, I prepared a long splint with a wide foot-piece, so as to carry the splint well off from the limb, and by means of muslin roller bands upon the ankle, and the ordinary extending perineal band, cushioned with cotton, I made extension while the patient was under the influence of a mixture of ether and chloroform. While the patient was still asleep I enveloped the whole limb, from the ankle to the groin, in a firm starch bandage, using plenty of pasteboard in its construction. During all the time of application of this shell of muslin, pasteboard, and paste, the extension was kept very tight, so as to make the broken limb seem a little longer than the other. A few hours afterwards it was deemed advisable to split this shell on the outside, opposite the seat of the lower fracture, but it did not become too tight from swelling of the limb at any other point. In two or three days it required to be split down and bandaged tighter, to make it grasp the limb firmly. The patient complained of the tightness of the extension on the top of the tarsus and around the lower portion of the leg, and I applied a strong loop of several thicknesses of adhesive plaster on each side of the leg, and in addition to a few circular turns of adhesive plaster for security, I made it still more firm by an additional shell of starch bandage over the whole limb, including the adhesive plaster, except the loop ends, which were made to project through this outer shell.

My improvised splint was exchanged for Day's long splint with a screw extension at the foot. By means of a cord

through each loop, and fastened over the foot piece of the apparatus, with a carefully arranged counter-extending band, well cushioned, and a piece of soft muslin, well besmeared with tallow, applied next the skin of the groin, and all made tight, the knee elevated a little at the time of the first dressing, to take off the otherwise painful tension from the flexors of the leg, and kept thus slightly elevated, my patient was in as safe and comfortable a position as could be possible. This extension upon the starch bandage shell applied to a very large surface, the top of the tarsus and the swell of the malleoli, and the swell of the gastrocnemii muscles. The pressure of the shell upon the malleoli and tarsus was never in the least painful. As the contour of the thigh lessened, the shell was again split down on the outside, and drawn closer. The fingers passed along through the slit and under the shell over the seats of the fractures, discovered no enlargement from callus, thus favoring the doctrine that callus is, in great part, occasioned by motion and mal-position.

The patient came out without any appreciable deformity or shortening, by my most careful measurement, from superior anterior spinous process of ilium to the internal malleolus. Two things are necessary to such a good result:

1st. An extension that never relaxes, except by the stretching of the parts drawn.

2d. Such a close bandaging of the muscles as will stop all motion, either voluntary or spasmodic.

Here I cannot avoid a criticism upon the excellent book on surgery, by Erichson. Such language as this I think exceedingly dangerous to those who have not sufficient experience not to be hurt by it.

"By employing the starch bandage, I scarcely ever find it necessary to keep patients in bed with simple fracture of the thigh, for more than six or seven, or of the leg, more than three or four days, thus saving much of the tediousness and danger of the treatment." (Blanchard & Lea's edition, 1859, page 195.)

Here follows a picture of a man on crutches, with his limb hanging in a starched bandage shell. The pressure of this

apparatus upon the upper part of the thigh, the tuberosity of the ischium, and the groin, must cause absorption of subcutaneous fat, and shortening must be inevitable in oblique fracture.

Bending of recently united fracture, and the means of removing the deformity.—Miller's Principles of Surgery, page 497.

"A broken bone must be warily used for some considerable time after apparent consolidation, and a broken bone may, anywhere, have its contour remedied by suitable pressure, even after the process of reparation seems to have been completed. * * * * Many a fractured limb has been set free at the ordinary time, of proper length, and void of all deformity, which, nevertheless has soon become both shortened and bent to an extent which has impaired both its symmetry and its function."

Hamilton's Report (loco citato) pages 271 and 272.—A remarkable case of bending occurring six months after the fracture.

Fergusson's Practical Surgery, page 341, note by D. Norris. The means for removing deformities following fractures of these kinds, viz:

1. Well applied pressure and extension.

2. Re-fracturing the bone.

3. Removal of a triangular section of bone at the most projecting portion of the deformed bone.

Pressure and extension is applicable as late as the fiftieth or sixtieth day from the date of the injury.

Dupuytren has succeeded as late as the one hundred and twentieth day from the injury.

4. The fourth method, introduced by Dr. Brainard, of Chicago, consisting in inducing inflammation and consequent softening of the bone; after which pressure and extension are to be made, supercedes the necessity for re-fracture of the bone or the removal of a triangular portion.

A full account of this method, by drilling the bone, is given in Dr. Brainard's Prize Essay, in the Seventh Volume of the Transaction of the American Medical Association, for 1854,

page 254, and also in the *Chicago Medical Journal* for January, 1859, and favorably referred to in Hamilton's work on Fractures.

When the surgeon finds that in consequence of an undetected relaxation of extension, the fragments have overlapped, and a forcible and continuous extension fails to bring them again to their proper relations, there is, of course, nothing left but to break up the callus, or leave the patient to his deformity. As the callus is, for a considerable time, softer than the original bone, it will yield rather than the fragments themselves, after which, by stretching all the muscles passing the fractured point, as much as some of the muscles are stretched in some dislocations, the fragments may be brought to their proper relations and retained there until consolidation again takes place.

ARTICLE 2.

HYSTERIA.

REPORTED BY J. P. ROSS, M. D., ATTENDING PHYSICIAN TO CITY HOSPITAL.

Emeline E., aged twelve years, was admitted into the City Hospital January 20th, 1860. At the time of her admission it was impossible to obtain a correct history of the case from the patient herself, but the following statement, given by her mother, a very intelligent woman, may be relied on as correct. She states that no hereditary tendency to disease exists in the family; that Emeline has always enjoyed good health until December, 1858, at which time she dates the commencement of her present illness. At that time she was descending a stairway and fell the distance of a few feet, striking on the lower part of the spinal column. The injury was so slight as not to attract attention at the time, and nothing was thought of it until the spring of 1859, when the family physician was

consulted. At this time she complained of a pain in the back and loins, habitual constipation, frequent headache, and considerable impairment of the motion of the lower extremities. The attending physician made a careful examination of the case, and, without promising any relief, ordered counter-irritation to the spine, with internal medicines, and occasional purges to move the bowels. This treatment was sedulously employed for six weeks without any apparent relief. During this time the bowels became so obstinately constipated that it required the most active medicines to produce the desired effect, and each movement was attended with severe pain and tenesmus. There was also occasional retention of urine, and convulsions, with manifest impairment of the mental faculties. This condition of things induced the attending physician to solicit an examination per rectum and per vaginum, which, however, it was impossible to obtain without using force with the patient.

The examination revealed a mal-position of the womb in such a way that pressure was maintained on the rectum and bladder, preventing those organs from discharging their functions. The treatment was now somewhat changed. Counter-irritation to the spine was discontinued and such means used as were calculated to correct the displacement of the womb. This plan of treatment was continued three weeks, during which time all the symptoms were aggravated, and in addition, there was complete loss of motion of the lower extremities, the legs being flexed upon the thighs, and the thighs upon the abdomen, and constantly retained in that position. The displacement of the womb had been frequently reduced by the attending physician, and such remedies used as were calculated to retain the organ in its proper position—such as astringent injections and tonics. At no time during these manipulations was there any appearance of an os utero, and as a consequence a malformation of the organ was suspected. This suspicion, together with the complete inefficiency of the means thus far employed, induced the attending physician to ask council, which being readily acceeded to by the friends of the patient, a consultation was

held June 10th, 1859. The treatment after the consultation was somewhat modified, the consulting physician being unable to make out any serious displacement or malformation of any kind. Rest, soothing injections, and tonics were the principal means recommended and used for several weeks, but without any beneficial result. It was then thought she was the subject of nymphomania which kept up in some way the exciting cause of all this difficulty. A strict watch was instituted to detect her, if possible, in the act of violating her person, but failing in this, and finding the symptoms becoming aggravated it was deemed advisable to employ additional council. A second consultation was called and a careful examination instituted. At this time it was thought the difficulty was principally an enlarged and calloused condition of the os uteri. The solid stick of the nitrate of silver was applied to the diseased organ, and its use recommended every second day. The application of the caustic was attended with excrutiating pain, which lasted for twelve hours, and as no good resulted therefrom, its further use was dispensed with. The same plan of treatment as before the last consultation was continued with all diligence and care for the next three months, during which time the condition of the patient became truly miserable, and without any hope of relief from any source, she was sent to the City Hospital, having been under treatment nearly nine months.

She came under my care February 1st, 1860. At this time the general nutrition of the body was good, with, perhaps, the exception of the lower extremeties. These were closely flexed upon the body, and entirely useless. No kind of persuasion could induce her to make any effort to extend them. The muscles were flaccid and somewhat emaciated, but in other respects normal. Her disposition was exceedingly erratic. At times she would cry like a child, and then becoming suddenly angry, would curse, with horrid oaths, her attendants. Her physical strength was unimpaired. A careful examination of the spine revealed nothing abnormal; there was no tenderness or deformity in any part of its length. The thoracic and abdominal organs were all healthy. An exami-

nation of the uteris was not deemed necessary. The length of time the disease had existed—the entire absence of any organic lesion—the well nourished condition of the body—together with the great perversion of the mental faculties—forced me to the conclusion that I had to deal with a case of simple hysteria, disconnected with any organic disease, whatever.

Regarding the case then as one of simple hysteria, I did not adopt any plan of active treatment. The cautics, the injections, the active purges, and the tonics, were discontinued. No medicine was given. The Matron of the Hospital, a very capable woman, was asked to take charge of the case and give the advice such persons require, and if possible get her rid of the idea that she was a dying invalid. She kindly consented to do this for me, and the result has been most satisfactory.

February 15th.—Patient up and walking about for the first time; makes no complaints, and requires no attention at my hands; is still a little irritable.

March 1st.—Discharged cured.

Remarks.—However accurately this case simulated all the diseases—and many more—for which she was treated before she entered the Hospital, it is very evident that her whole trouble had a mental origin. This is made clear by, not only the previous history, but also the result of the treatment after her admission into the Hospital. When she entered the Hospital she was in no wise better than she had been at any time for the previous nine months. The loss of motion in the lower extremities was complete, and the mental derangement so entire, that she seemed on the border of hopeless insanity. Now how much the idea which had become fixed in her mind, that she could not control the paralysis and mental derangement, had to do with the difficulty, is made evident by dispelling this idea and fixing the opposite; for, as fast as confidence came that she could walk, and control her mental aberrations, she possessed and exercised the power to do both; and as mental harmony was restored, physical health and harmony followed as a sequence. I suppose the uterus had very little to do with the case as a *cause* of the difficulty. If the efforts

of nature to establish the menstrual function was at the bottom of the trouble—which is a more natural view than many that have been entertained—the health would not have been restored until this function was established. Yet she was discharged in perfect health, without the slightest show of the menses appearing at any time.

ARTICLE 3.

WOUND OF THE STOMACH TREATED BY LARGE DOSES OF OPIUM.

BY DR. JAMES CODY, OF WATERTOWN, WIS.

I was called in haste on the night of November 27th, last, at 11½ o'clock, P. M., to see Wm. Forsyth, aged nineteen years, who, a few minutes before, was reported to have received a stab in the left side, in an affray at a saloon. I found him lying on the floor; face pale and exsanguinous; extremities cold; pulse very small; he complained of feeling very weak and faint. On examination I found an incised wound on the left side, between the ninth and tenth ribs, seven and a half inches from the sternum and nine inches from the spine. The wound was about one inch in length, and parallel with the ribs; through the wound a small portion of the stomach had protruded. This was returned, not into the cavity of the abdomen, but left resting in the muscular tissue between the ribs; the edges of the wound was now brought together, one suture taken, and strips of adhesive plaster snugly applied, a bandage closely drawn around the chest, completed the dressing.

One-third of a grain of morphine was now given, with directions to repeat the same every two hours until he became fully under its influence.

28th, 8 A. M.—He has taken three doses of morphine, and is fully under its influence, breathing very heavily, and is

aroused with difficulty; when aroused complains of no pain, but is very thirsty; stomach considerably distended and resonant on percussion; on moving him in bed he vomited freely; pulse 140 per minute; is to continue morphine, and drink ice water.

8 P. M.—Stomach greatly distended; but little or no fulness of abdomen, (except over the region of the stomach;) high fever; pulse 140, hard and bounding; breathing difficult; when roused up is delirious. Bled him copiously, which reduced the pulse; is to continue the morphine during the night; also the ice water as drink; apply ice water to head.

29th, 8 A. M.—Morphine was omitted twice during the night, for the reason that he became narcotised (it will be remembered that he had taken one-third of a grain every two hours,) stomach greatly distended; some tympanites of the abdomen; pulse 140, but softer than yesterday; is delirious when roused up; complains of no pain; says he dreams very much, but when asked what he dreams says he forgets; is to continue morphine, also ice water for drink; is to have an injection to unload the bowels.

8 P. M.—Has had two dejections; stomach about the same; no fulness of abdomen; complains, for the first time, of pain in the region of the stomach; on pressure over the stomach he flinches. Applied a blister over the stomach; continue morphine; is to drink ice water.

30th, 8 A. M.—Morphine was omitted at 11 and 4 o'clock. The pulse is 130; not so delirious when roused up, this morning; says he feels a burning sensation in the stomach; no appetite; is thirsty and drinks a large quantity of water The stomach keeps greatly distended yet, is to continue morphine as heretofore.

8 P. M.—Was rather more restless to-day; complained of pain in the head; attempted to get up several times; some twitching of the tendons of the fore arms; says he feels faint; is not so thirsty; continue morphine; also give injection of beef tea.

December 1st, 8 A. M.—Distention of the stomach the same; complains of slight soreness and burning in it; pulse

130 and small; some pain in the head; is not very thirsty; says he dreams much—dreams are pleasant; some subsultus tendinum; took morphine ¼ gr. every three hours during the night; is to continue the same to-day; also injections of beef tea, one-half pint every four hours.

8 P. M—Pulse 130 small; appears very drowsy, but is perfectly rational when aroused; complains of no pain; continue treatment the same.

2d, 8 A. M.—Pulse 130; reported to have rested well during the night; his condition is about the same as yesterday; continue treatment the same.

8 P. M.—The same as in the morning. Gave the morphine only every four hours; injections the same.

3d, 8 A. M.—Rested well last night; is evidently improving; pulse 120 and small; mind clearer; stomach less distended. Is to take arrow root to-day, also continue injections of beef tea, and give morph. ¼ gr. every four hours.

8 P. M.—Complains of feeling very weak; arrow root was well relished, and rested on the stomach well; pulse 120, and of better character; the fulness of the stomach is evidently decreasing; continue arrow root for drink, also morph.; brandy to be added to the injections.

4th, 8 A. M.—Stomach less distended; spent a good night; seems improving, continue treatment.

8 P. M.—Appears much stronger; expresses himself as doing well.

5th, 8 A. M.—Continues to improve.

6th, 8 A. M.—The same as yesterday.

7th, 8 A. M.—Is improving rapidly; pulse 100; takes less morphine—¼ gr. every six hours.

8th, 8 A. M.—Continues improving; has an appetite, and wants to eat; is to have rice.

9th.—Reports himself as well this morning; needs no medicine.

10th, 8 A. M.—Discharged as cured.

IODINE

AN ANTIDOTE TO THE VENOM OF THE RATTLESNAKE, CROTALUS, AND IN THE TREATMENT OF THE BITE.

BY JAMES S. WHITMIRE, OF METAMORA, ILL.

In the December, or January number of the *N. W. Medical and Surgical Journal*, of 1849, or '50, I published an article in relation to the tinct. of iodine in the treatment of the bite of the rattlesnake; in which I argued that the venom produced debility of the capillary vessels, first by direct contact, and afterwards, by its absorption into the general circulation, it effected the entire system; and that the tinct., used as a paint upon the part, gave tone to the vessels by being absorbed; and that I consequently considered it a rational treatment. I suggested, in the same article, that iodine was an antidote to the venom, and believed it to be so, on account of the extraordinarily short time in which the system seemed to get rid of the poison, and ceased to be disturbed by its prostrating effects, especially, when the remedy was used immediately, or even within six hours of the insertion of the venom. This was written after having treated many cases, during the years 1845, '46, '47, '48 and '49; and I had become thoroughly convinced, that the treatment of the bite, of all venomous serpents or reptiles, by iodine, was altogether preferable to any other then known to the profession. At that time, I had not satisfied myself, by actual experiments, that it was an antidote to the venom. Soon after this, however, Professor Brainard, of Rush Medical College, instituted a series of experiments, which were duly reported to the Illinois State Medical Society, at one of its subsequent sittings, in an ably written paper, read before the Society, proving, beyond a doubt, that iodine wrs a perfect antidote to the poison, completely destroying its effects on the animal economy, and therefore an indespensible agent in the treatment of the bite. Since his experiments, I have repeated them for my own satisfaction, with the same results. I have since then, again made some experiments of a different and inter-

esting character, which, even though they prove of no practical value, will, nevertheless, go far to establish a still mooted point; viz: whether the venom, when swallowed, will produce the same constitutional effects that are developed by it when injected into the celluar tissue by the bite. For this purpose I procured three of the largest, of the kind, that I could find on the prairie, and decapitated them, and proceeded to seperate the poison-gland, sac that contains the secretion, and fang, all together, from under the orbit. By pressing the gland and sac between the thumb and finger, I could get from one to two drops from the canal in the fang, which I washed off in sweet milk, (I used six fangs in these experiments,) and gave it to two young dogs, four months old, and three cats about the same age. To one dog and one cat, by means of a stomach tube, I gave each iii gr. of iodine and vi gr. of iod. pottass rubbed up in water. In about two hours they both began to be restless and uneasy and finally began to be languid and feverish and would take no nourishment, but would take water when offered to them. In six hours after, I repeated the dose; and in twenty-four hours they began to assume their wanted spirits, and never showed any distinguishable signs of poisoning. The other dog, and one cat, I did nothing for, and in about an hour they both began to show signs of illness. The cat mewed and gave out the most piteous cries, and seemed to be in the most excruciating agony, had fever and great thirst, drinking quantities of water, which it would eject from its stomach in twenty or thirty minutes. In five hours it began to swell and purge, so that, in fifteen hours the whole cellular tissue was infiltrated with serum. After this it had sanguineous discharges from the bowels; and at the end of twenty-four hours it died in convulsions.

The dog was held in very much the same condition, excepting when water was placed before him he would rise up on his fore legs and lap it greedily, and then sink back into the same languid condition. He vomited and seemed exceedingly prostrated for ten hours, and then remained stupid and whined, as if in pain, for twenty-four hours, after which he

began to have bloody discharges from the bowels. He commenced swelling about the tenth hour, and at this time he began to have a thin sero-sanguinous fluid run from his eyes, and the vessels of the conjunctiva were greatly engorged, and the cellular tissues under the conjunctiva was so infiltrated with bloody serum that his eyes had more the appearance of balls of clotted blood than orbs of vision. He remained in this condition for about five days, taking no nourishment, but drinking a great quantity of water, though this was attended with difficulty, on account of the swollen condition of his tongue. He now began to show signs of improvement, recovering his appetite slowly, his eyes losing their clotted appearance, and the swelling to cease; so that in six days Ponto was himself again.

To the last cat I gave diluted alcohol, every four hours, so soon as it began to show signs of illness, which commenced with the same languor, lassitude, pain and fever as the others did. It wanted no food, but drank considerable water, being stupid all the time, either from the effects of the alcohol, or the poison. It remained stupid and feverish for three days, after which it began to recover; and in about ten days I discharged my patient as cured, though it was still weak, and would have been the better of longer care.

My impression now is, in regard to the popular alcoholic treatment, that it does not act as an antidote to the venom, but merely stimulates the nervous system, through the great centers, and keeps the system above the depressing influence of the poison, giving nature a chance to get rid of the poison through its own resources.

These experiments have convinced me, that the venom, whether swallowed, or injected into the cellular tissue, produces precisely the same results upon the animal economy, only the former acts more generally and the latter locally.—Since I commenced the use of iodine, in the treatment of the bite of the rattlesnake, I have had every reason to be satisfied with its use; never, in the course of fourteen years' country practice, having been disappointed in its effects. During that time I have treated 75 cases in man, which have comprised

every grade of the effects of the poison that may be produced, reasonably, short of absolute dissolution, to within an hour of the infliction of the wound by the serpent. When called in a recent case, or even within fifteen hours of the bite, I now adopt Professor Brainard's plan; which is, to inject the cellular tissue, in and about the wound, with the tinct. of iodine, by means of a sharp pointed silver syringe, and then proceed to paint the swollen parts thoroughly with the tinct., and try to keep in advance of the swelling, from two to three inches; and in recent cases this is all the treatment necessary to complete the cure.

If called after the constitutional effects of the poison have become developed, I paint the limb, and even the whole boby, with the tinct., and give, internally, wine or brandy, with iod. potass. and chlor. potass. dissolved and largely diluted in water, till the urgent symptoms begin to subside, and then administer quinine and iron as a tonic, &c. I have treated two extreme cases, it having been three days from the time of the bite till I was called. In both cases there was fever and delirium, with extreme prostration, the wound black with infiltrated blood and vesicated patches on the limb filled with a sero-sanguinous fluid, and hemoragic discharges from the bowels. For the latter, I prescribed solid opium, and a turpentine emulsion, with kreosote, so that my patient got one drop of the latter every four hours, at a dose. I gave them chlorate potash and iod. potass. dissolved and largely diluted with water, and brandy or wine, ad. libitum. I painted my patients nearly from head to foot with the tinct., and varied my treatment according to the urgencies that presented till convalescence was established, which was in about ten days from the bite. Their convalescence were slow and tedious but finally they recovered their usual health, strength and spirits.

PHYSIOLOGICAL INCEST.

MESSRS. EDITORS of the Chicago *Medical Journal*:—In the April number of your Journal, I find an article, written by W. Boyd Powell, M. D., entitled, "Physiological Incest."

The cause of insanity, is a subject that deserves, yes, *demands*, the attention of the profession, in an *economical*, as well as *scientific*, point of view.

The Dr. thinks he has found the cause of "premature death and decay," as well as insanityand idiotcy—also can prognosticate the fate of the offspring, arising from the union of the temperaments. (?)

On account of the importance of the subject, and my interest in the same, please allow me to ask the Dr. a few questions, through the medium of your Journal:

1st. Are we always sure to have an amalgamation of the progenitor's temperaments, in the progeny?

2d. Are there any temperaments of such a nature, that if they should come together in progenitors, they would be neutralized in their progeny?

3d. What constitutes *compatibility* and *incompatibility* in the temperaments?

4th. Why will the progeny of the progenitors, whose temperaments are "3 and 4," be dead born?

5th. How do we *know* that the progeny springing from progenitors of certain temperaments, will die of tubercular disease—others become insane early in life, and others be born idiots?

6th. What does this mean?—"Two-thirds of the progenitors, indicated by 13, will be dead born, and the other third will die during infancy." If the two-thirds *die before they are born*, how can they ever become *progenitors*? And if the other third die before puberty, how can they ever become progenitors?

Respectfully,

J. J. M. ANGRAR, M. D.

Racine, April 15th, 1860.

Editorial.

BOOK AND PAMPHLET NOTICES.

Clinical Lectures on certain Acute Diseases; by Robert Bently Todd, M. D., F. R. S., Author of Lectures on Diseases of the Urinary Organs, etc., formerly Physician to King's College Hospital, London. Blanchard & Lea, Philadelphia, 1860. Received through S. C. Griggs & Co., 39 & 41 Lake St.

This book contains a series of Dr. Todd's Clinical Lectures, delivered in King's College Hospital, on the following subjects:

Rheumatic Fever, Continued Fever, Erysipelas, Acute Inflamation, Pyæmia, Pneumonia and its complications, and the Therapeutical action of Alcohol.

The presentation of this work to the professional public, is a fitting close to a life of honor and usefulness, of which we have so conspicuous an exomple, in the career of Dr. Todd. Though a less labored work than are most of those that have previously come from his pen, which, from their merit, have made his name so familiar to the world, yet it will hardly prove less useful; containing, as it does, the perfected knowledge on the subjects on which it treats, of an acute observer, endowed with industry and favored with every desirable opportunity for arriving at truthful conclusions.

The diseases considered are among the most isteresting with which it is the fortune of every physician in active practice, to come in daily contact. The treatment adopted in the different diseases, and its results are given; the physiology of organs is indicated, and the pathology of diseases illustrated by numerous clearly reported cases.

After giving a clinical history of Rheumatic Fever, the dif-

ferent modes of treatment that have been most resorted to in its management, are reviewed:

1st. Extreme depletion by venesection. This is deemed pernicious, being productive of harm rather than good.

2d. Moderate bleeding and the administration of diaphonetics. So far as the bleeding goes, this is thought to be injurious, and the diaphonetics prove useful only to the extent they may may promote elimination. On the whole, it is an expectant treatment and is somewhat better than the first.

3d. By mercurials, to which it is objected "that it is an attempt to cure one fever by setting up another, and in some respects, a worse. Even supposing the original disease succombs, your patient comes out of his rheumatic fever with loose teeth, ulcerated gums, and all the painful concomiants of ptyalism. Now I say, that under these circumstances, the remedy is nearly as bad as the disease; and, moreover, it does not in the least guard the patient against what may be termed the accidents of his malady—those severe internal inflamations, pericarditis, endocarditis, pneumonia, pleusitis, peritonitis."

4th. By colchicum and guaiacum—these are inefficient, unless carried to an extent to occasion purging, when they do good as eliminitives, but they sometimes induce a dangerous degree of prostration.

5th. Opium—an excellent remedy, but it should not be relied upon alone.

6th. Quinine—not so universally useful as opium, but in many cases an agent ot great worth.

At the conclusion of such a review, can we wonder that the exclamation should be made, "imagine the state in which the pithology of a disease must be, when measures so completely at the opposite extremity of our therapeutical resources are advocated for it, as venesection to the amount of two or three parts on the one hand, and large doses of quinine on the other." The treatment that Dr. Todd believes to be the most beneficial, is that by *elimination*; its adoption being based upon the idea that the disease is due to some "*materies morbi*" in the blood, "probably lactic acid, or some anolo-

gous agent." This is saught to be removed by the "promotion of the action of the skin, the kidneys, and the bowels, and the use of antacid remedies, and large quantities of fluid for the free dilution of the materies morbi, and to supply the waste caused by the drainage from diaphoresis and diuresis." In the other diseases, especially typhoid fever and erysipelas, Dr. Todd recommends the early adoption of a vigorously sustaining treatment.

The views of the pathology of these diseases, and the treatment proper for them, cannot be said to be new, for recently the general practice of the profession has been verging more and more to the general treatment; and this we deem a vast improvement on the antiphlogistic plan formerly so univerresorted to, and even yet, not sufficiently discarded. Dr. Todd may go farther than many practitioners will be wllling to follow in the application of this plan of treatment; but this we believe, that in the main, he is correct; and that more especially in typhoid fever and erysipelas great numbers of patients are annually sacrificed by a failure to recognize the necessity of an early, vigororus and persistent support of the vital powers.

Dr. Todd's views of the physiological action of alcohol ore embraced in the following quotation, which indicates his idea of its therapeutical application; page 290:

Alcohol, taken carefully, incseases the animal temperature; it also strengthens the action of the heart; and, when administered under proper circumstances, it reduces the frequency of the pulse. So far as it influences the nervous system, the action of alcohol is that of what is commonly called a *stimulant*, an unfortunate term, indicating a distinction without a difference. Other forms of food are likewise stimulant, but as they do not act directly and quickly on the nervous system, their exciting properties are not so apparent. In like manner, alcohol possesses its stimulating property because it is a form of aliment, appropriate to the direct nourishment of the nervous system, and to its preservation; and its special adaption to this system gives it an immediate exciting power superior to any other kind of food. Alcohol is also fitted to uphold the calorifacient process, and therefore to protect the nervous and other tissues, which, without it, would

be largely called upon to furnish fuel for the oxygen which supports that process. And for this purpose, alcohol possesses considerable advantages over most other hydrocarbonaceous substances, in consequence of the ready manner in which, when swallowed, it passes into the blood. Oil is a hydrocarbon equally with alcohol; but the digestion of the latter is a very different affair from that of the former. Oil, when swalloed, remains for some time in the stomach, where, however, it undergoes no change; it subsequently passes down into the small intestine, where it is subjected to the action of the pancreatic and other fluids, and having become converted into chyle, is absorbed by the intestinal villi. Thus the digession of oil is a far more complicated porcess than that of aicohol. Hence, then, as a calorifacient form of food, as a promoter of the nutrition of the nervous system, and as admitting of easy and quick absorption into the blood, alcohol possesses a combination of qualities which render it of the utmost value in tne treatment of disease.

The subjoined is the substance of the treatment recommended for erysipelas; page 142:

The upshot, then, of all I have to tell with respect to the treatment of erysipelas, is to give stimulants and nourishing freely, and from the very commencement of the attack.—Don't trouble yourselves with too much attention to the secretions, as some are apt to do, who imagine that the alteration of these by gray powder, black draught, *et hoc genus omne*, is necessary to the favorable issue of the case, but who, by the time they have got the secretions into what they conceive to be a correct condition, find that their patient is fairly slipping through their fingers, and is dying, worn out and exhausted. As soon as you are satisfied that the patient to whom you are called is laboring under erysipelas, at once begin to administer stimulants and nourishing food, using the precautions I have mentioned; and what I wish above all things to impress upon you is, that this stimulating treatment should be employed from the very beginning of the attack. With respect to the bowels, you must be guided by circumstances; if they are confined, you may open them by an enema, or by a dose of castor oil or some other medicine, which will neither irritate the mucous membrane of the alimentary canal, nor exhaust the patient's strength; always keeping in view that the poison of erysipelas is exceedingly depressing in its action, and that the object of all your treatment should be, first, to antagonize the poison, and seconly, to uphold the patient's powers, to enable him to bear up against one of the

most lowering and debilitating diseases to which the human frame is liable.

Now of all the stimulants, I believe, as I have already said, the alcoholic are the best, and I have witnessed such remarkable effects, in such a variety of cases, produced by their free exhibition, that I am inclined to consider them as *antidotes* to the erysipelatous poison. If I were to be restricted to any one remedy in the treatment of this disease, I should, assuredly, use brandy. With a commissariat well supplied with brandy, and simple means to keep the bowels open, I think I could engage to keep erysipelas at a minimum among the wounded in our army in the Crimea.

Some attach great importance to the use of the tincture of sesquichloride of iron in this disease. I have no doubt many cases, such as those which I have placed in my first group, will get well under that drug, partly and mainly because it excludes depressing treatment, partly, perhaps, from some tonic power in the medicine; but I would as soon think of trusting to it in the third or fourth group of cases, as I would to the billionth of a grain of anchorite, or arnica, or sulphur, or any other homœpathic absurdity. The remedy, so far as I know, is unobjectionable in itself, but its power to do good is small; and if you try it, let me advise you not to trust to it alone, but merely to use it as an adjunct to the treatment which I have endeavored to impress upon you to-day. For, as I before said, there is a large class of cases of erysipelas which will get well without any treatment whatever, and, indeed, in spite of the depressing treatment, either because the dose of the poison which these patients have imbibed has been very small, or because their powers of resisting acute diseases are very great. In such cases, you may, if you like, amuse yourselves with giving a remedy of the nature of sesquichloride of iron. But in all severe examples of the malady, place your trust in food and brandy, freely given under careful regulation, and adopted from the commencement of the attack.

A Guide to the practical study of Diseases of the Eye—with an outline of their medical and operative treatment. By James Dixon, F. R. C. S., Surgeon to the Royal London Opthalmic Hospital, Moorfield. From the Second London Edition. Philadelphia; Lindsay & Blakistone, 1860. From S. C. Griggs & Co., 39 and 41 Lake St.

Few diseases have so much interested the medical profession of England and the continent of Europe, within the past few years, and been the subject of works of merit, as those of the eye. When we reflect that there is scarcely a branch in the whole range of medical science of so much practical importance as opthalmology, that there is scarcely a nonvital organ in the body, upon which the greater portion of mankind is so dependant as upon the eye, not only for moral and mental culture, but for daily support, it seems strange that the study of this class of diseases should have been so neglected as they have been by the profession of this country. Physicians in every part of the country acknowledge that too little interest is felt in this subject. It can be explained in part, we think, by this neglect of ophthelmic science, why the treatment of diseases of the eye falls so extensively into the hands of a class of practitioners, which is not regarded as honorable by the profession.

Fortunately, a greater interest in the subject is awakened in different parts of the United States. Infirmaries have been established in several eastern cities, affording excellent facilities for clinical instruction, the importance of which is also impressed upon the mind of the student.

Every new work upon diseases of the eye, especially adapted to the wants of the student must be received with favor by the friends of medical science. We believe that text books with the leading principles of each department of medicine, carefully explained, are of the greatest practical utility to young men while pursuing their college course.

As regards the large standard works upon diseases of the eye, it is undoubtedly true that the student, while attending lectures, has not time to peruse any one of them with care.

The book before us we consider as being particulayly fitted

to fill the place for which it was intended. It is, as it purports to be, a guide to the practical study of diseases of the eye. The volume, very much smaller than ordinary medical works, equals, perhaps, in typography and general appearance, any medical publication we have.

The work gives a concise statement of nearly all the great discoveries in the surgical treatment of ophthalmic disease within the past few years. The principlns and use of the ophthalmoscope are clearly, though briefly explained, and its utility in diagnosis fully appreciated.

The volume is of such a size, and the principles which it teaches are so clearly defined, that the student can reasonably be expected to acquire a thorough knowledge of all it contains, before finishing his college course.

The diseases of no organ demand more careful clinical observation on the part of the student in acquiring skill in diagnosis, than those of the eye. It is only in connection with suitable clinical instruction that the student can gain such practical knowledge from any work on diseases of the eye, as to enable him to diagnose these diseases with accuracy and treat them with judgment.

We do not feel called upon to criticise the work on account of many omissions which we might notice, since the author claims for it no higher title than that of *Guide*, with an *outline* of medical and surgical treatment.

While we would recommend the work of Mr. Dixon to the *student*, we would say to the physician that it should not take the place of Graefi, Sichel Arlt, Dresmarres, and the reprints of English writers. It is from the careful study of such works alone, that a thorough knowledge of the physiology, palthological anatomy and treatment of diseases of the eye can be learned.

E. L. H.

A Treatise on Medical Electricity, Theoretical and Practical; and its uses in the treatment of Paralasis, Neuralgia, and other diseases. By J. Althaus, M. D., Philadelphia. Lindsay & Blakiston. From S. C. Griggs, 39 and 41 Lake Street.

It is the province of the intelligent physician to apply all substances and forces in the whole range of nature to the prevention, mitigation, or cure of disease; and herein lies the difference that exists between the medical profession and the numerous fungous excresences that have in all times protruded, one after another, upon its surface, existed for a brief time, and sloughed away, as those now disfiguring it are, in their turn, destined to do. It is not strange that an agent of such wondrous powers as electricity, should, soon after it began to arrest attention, hove been applied as a relief to disease and suffering, yet it is something so subtle in its nature as not easily to be investigated by the mass of observers; its properties and powers being known only by the results of its action. Therefore it is not strange that its uses as a remedial agent have hitherto been chiefly of an empirical, and therefore, not very intelligent character.

The work under notice is evidently the offspring of much thought on the subject, and will do something to improve our knowledge of the circumstances demanding the use of this remedy, and the proper mode in which it should be applied. We may also reasonably expect that some good may be accomplished by the tendency it will have to direct the attention of the profession more especially in this channel.

☞ Correction.—By an oversight of the compositor, in our April number, what was designed to be a notice of the meeting of the Indiana State Medical Society, was made to read, the "Illinois State Medical Society." The Indiana Society meets on the third Tuesday in May, 1860, at Indianapolis; the delegates from the Illinois Society being Drs. Brainard and Miller, of Chicago, and Dr. H. W. Davis, of Paris.

The Illinois State Society meets at Paris, Edgar Co., on the second Tuesday in May.—8th.

Dr. Brown's Sequard's Journal of Physiology.

We have received the first No. of this publication, for the year 1860. It continues to sustain its high character. We are pleased to learn that it has been so successful as to give assurance of permanency, and to enable the proprietor to add to its value by more copious and expensive illustrations.

The chief editor has been appointed physician to the hospital for epileptics, in London, and has recently removed his residence to that city; but this will nor affect the Journal, which will be issued, as before, at Paris.

☞ The body of Dr. John Hunter, who died October 16, 1793, aged 64 years, has been removed from its original resting place, and re-intered in Westminster Abbey. Steps have been taken, by the profession in England, to secure the erection of a monument over his grave, in honor of a name to which the *world owes so much.*

DR. FISHER'S CASE.

Dr. Fisher has brought a suit against H. O. Stone, of this city, for libel. The ground alleged is, that Dr. F. attended Mrs. Stone in labor; some time afterward she was found to have invertion of the womb—Stone accused Fisher of some mismanagement; hence the suit. Dr. Fisher published in this Journal, his version of the matter; Dr. Potter, of Geneva, N. Y., some time since, published another, probably Stone's version.

There the matter stood, when we noticed in the last number of the *Cleveland Medical Gazette*, a report of the deposition of Prof. John Delameter, taken, it is presumed, to be used in the case. We know not whether this deposition is intended or expected to favor the plaintiff or the defendant in this case. Its publication at this time, is calculated, if not intended, to manufacture public opinion and thus prejudge the case. If the publication was made in this state, it might

be easily stopped by injunction—out of the state, it cannot. We respectfully suggest to the highminded proprietors of the "Gazette," whom we truly respect, whether the cause of justice is likely to be better served by the publication of *ex-parte* testimony, than by laying it all before their readers after it has been used in court.

What would the editor say if a Chicago publication should take a course calculated to influence, in any way, the action of a court in Cleveland?

We claim for the courts, the bar, and the medical profession of Chicago, as much integrity, learning, and capacity as are possessed by those of any other city of its size. We think they can administer justice or aid in its administration, without dictation from any quarter.

NAMES OF THE GRADUATING CLASS

OF

RUSH MEDICAL COLLEGE—SESSION, 1859—60.

D. Orson B. Adams, Ill.
John J. M. Angier, Wis.
John T. Bellington, "
Frederick Bartells, Ill.
John B. Baker, "
Ed. L. H. Barr, "
Hiram Carnahan, Iowa.
John M. C. Damron, Ill.
Henry Durham, Wis.
B. Irvin Dunn, Ill.
R. M. Elliott, "
John B. Felker, "
A. M. Golliday, "
Jethro A. Hatch, "
Danl. Kirkpatrick, Ind.
Thos. J. Fritts, "
John Dancer, "
James Thompson, "
Leigh R. Holmead, Ill.
M. A. Isaac, "
Hiram C. Luce, "
Percy McAlpin, "
Philip Matthei, "
Wm. F. Osborn, "
Geo. W. Richards, "
Edward Thomas, "
Vincent S. Thompson, "
J. S. Underwood, "
William V. Wiles, "
Calvin Wheeler, "
William Irwin, Wis.
Sam'l A. Sheldon, "
C. M. Smith, "
John E. Ennis, Iowa.
Robert B. Ray, Mo.
James F. Spain, Ohio.

DE WITT COUNTY MEDICAL SOCIETY.

The Society met in annual session, at the office of Dr. Adams, at Clinton, on Tuesday, the 3d. day of April, 1860, at 10 o'clock, A. M. Present, Drs. B. S. Lewis, W. W. Adams, T. K. Edmiston, Z. H. Madden, J. H. Tyler, John Wright, Evan Richards, and C. Goodbrake, Also Dr. Davis, of Wapello, and Mr. Edwin Gideon, medical student.

The President, Dr. Adams in the Chair.

The secretary being absent, Dr. Goodbrake was appointed Secretary pro tem.

The minutes of the last meeting were read and approved.

The following officers were elected for the ensuing year:

President—Dr. J. H. Tyler.

Vice President—Dr. Evan Richards.

Treasurer—Dr. Z. H. Madden.

Secretary—Dr. C. Goodbrake.

Censors—Drs. W. W. Adams, T. K. Edmiston, and John McHugh.

Delegates to the Illinois State Medical Society—Dr. T. K. Edmiston, Dr. John McHugh and Dr. Z. H. Madden.

Delegates to the American Medical Association—Dr. John Wright and Dr. Joseph C. Ross.

Dr. Tyler, on taking the Chair, delivered a most excellent address, which was received with marked attention.

Dr. Lewis, the retiring President, delivered a well written valedictory address. Subject—the "Ingratitude of the public to the Medical Profession."

On motion of Dr. Goodbrake, the thanks of the Society were tendered to Dr. Lewis for his excellent address, and a copy requested for publication in the *Central Transcript*.

Dr. Richards reported a very peculiar case of injury of the chest—the patient having been thrown from a sulky.

Dr. Wright read the report of a case of typhoid fever, with the post mortem appearances. Accompanying this report, the doctor exhibited a portion of ileum which was perforated in four different places. A very spirited discussion arose on the subject of typhoid fever, in which most of the gentlemen present partook.

On motion, Typhoid fever was made the subject for discussion at the next meeting.

The President appointed Drs. Adams and Edmiston, to read essays at the next meeting.

On motion of Dr. Richards, Dr. S. W. Noble, of Le Roy, was appointed to write an essay on Puerperal Peretonitis.

On motion of Dr. Lewis, the thanks of the society were tendered to Dr. Edmiston and lady, for the excellent dinner furnished the members, at the Doctor's residence.

On motion, the Secretary was ordered to furnish a copy of these proceedings to the Editors of the *Chicago Medical Journal*, for publication.

On motion, the Society adjourned, to meet in quarterly session, at Santa Anna, on the first Tuesday of July next, at 10 o'clock A. M.

C. Goodbrake, Sec'y.

Chlorate of Potash in Mercurial Salivation.—In a great number of cases in which the energetic use of mercurials had to be suspended, on account of salivation supervening, its continuance was rendered possible by giving to the patients, daily, from ʒi to ʒiss of chlorate of potash; the phenomena of mercurialization disappeared during this treatment, or very nearly so, whilst the cure of the disease was in no way retarded.— *Zeitschr. d. Wiener Aerzte.*

Tincture of Iodine removes Corns.—By means of a camel's hair brush, wet the corn several times a day for a short time; the pain gradually disappears, the skin becomes thinner, acquiring, finally, its original softness. To prevent a return, all pressure of the shoe must be avoided.—*Zeitschrift d. Pharmabie, Leipzig*, 1859.

Miscellaneous.

ON UNION BY THE FIRST INTENTION AND PURULENT ABSORPTION.

BY WARREN STONE, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISIANA.

The tendency of us all is to fall into a routine, and to adopt some mode of practice, and to apply it to all cases and conditions; and hence the opposite systems of practice, often seen, not only in different cotntries, but in the same country and in the same city, and even in the same hospital. This is strikingly illustrated by the exclusive and opposite methods of dressing wounds, adopted by the American and French surgeons. The American sugeons dress with a view of obtaining union by the first intention in all cases, whether it is probable it may be effected or not. The French surgeons fill their wounds with lint to prevent union, if there should be a disposition to it. The French, however, I believe, are not so exclusive in their mode of dressing as the Americans, but both are undoubtedly wrong. It is undoubtedly true that our mode of dressing is far better adapted to our country than to France, but it is evident that neither method is adapted exclusively to either country. The American surgeon dresses all cases alike, whether there is prospect of immediate union or not. The wounded or divided parts are brought in close contact, regardless of the consequence of confining dead animal fluids upon surfaces not protected by the exudation of plastic lymph. The French surgeon, fearing purulent absorption of other impure animal matter, leaves the wound open, or fills it with charpie, to absorb any fluid that may accumulate, and to stimulate the surfaces. It is quite certain that, in the French hospitals, at least, adhesive inflamation does

not take place so favorably as it does in ours, and I will not pretend to determine how far they are wrong in their exclusive method of dressing; but, favorable as our country is, I am sure that we are as much in error in our exclusive method as they are in theirs. We have not attached sufficient importance to the danger of confining by dressing the effused fluids in the depths of wounds that do not take on healthy, adhesive inflamation. Even if absorption does not take place and affect the system generally, the local effect is bad, causing unhealthy action, and in some cases favoring gangrene. This is shown by the unhealthy inflammation that often follows contused and lacerated wounds, where the blood is diffused in the tissues and the air has sufficient access to favor decomposition.

Hunter, in his work on the blood, warns us against making an opening to discharge the blood that may be extravasated in the tissues after contused wounds, but without giving any other reason, except the fact that such opening is liable to be followed by illconditioned inflammation. While blood is excluded from the air, it remains harmless, and plastic lymph will be exuded around it; but if the air has access to it, decomposition may change it to poison, which will change the character of the inflammation entirely, and reduce the blood to the capacity of the absorbents, and it may be absorbed, and produce more or less constitutional disturbance. I am sure this takes place, under certain circumstances, from blood extravasated into the large serous cavities, for I have seen cases of death, with all the symptoms of animal poisoning, shown by the experiments of Magendie, when the consequent inflamation was very little. This should furnish a plain indication in the management of wounds of this kind; and in the dressing of wounds generally, we should be cautious in confining the animal juices or effusions.

When union by the first intention cannot be expected, it is, at best, useless to bring the surface of the wounds closely together, and even if no other serious consequence follows, the wound itself often takes on unhealthy inflammation, and does not granulate as well as if it had been left more open for the ready discharge of any effused fluid, and for the application of stimulants, if necessary.

It is a great object, in many cases, to effect union by the first intention, in large wounds such as are left after amputation, for the diminished irritation and the saving of the drain of suppuration may often be the means of saving the life of the patient. Something may be done before dressing to les-

sen the effusion that always takes place from exposed surfaces, and to favor healthy reaction. The effusion of serum would cease, of course, if we waited long enough before dressing, but this is not generally done, and, indeed, in many cases it would require an hour's exposure. The application of ice answers the double purpose, that of drying the stump and affording healthy reaction and the adhesive process.—This, I believe, is a perfectly safe application (unless rigors are produced by it,) and when the capilary circulation is feeble, or when it is feared that too little reaction will take place, there is no other stimulant so wholesome, or that produces so natural and healthy a reaction.

In the French hospitals, purulent absorption is the great dread, and this has led to a more general use of the ecraseur than would otherwise have been given it, for it is asserted (and I believe with truth) that wounds made by this instrument heal more favorably than those made with the knife, and are much less liable to what is termed in Paris purulent absorption. I have reference only to the Paris hospitals, for union by the first intenlion cannot be contemplated when the ecraseur is used. The favorable result, however, of wounds or operations by this instrument, goes to prove what I have asserted of the bad effects of the effused animal fluids in wounds, either directly on the surface of the wound or by absorption. The ecraseur does not make a rough and ragged wound, as is generally supposed, but the tissues are cut as with scissors, but in such a gradual manner as to give time for the closure of vessels of moderate sizes, and consequently there is no oozing or exuding from its surfaces, and it remains dry, and is followed by no ill-conditioned inflammation. Why is this, when incised wounds are disposed to behave so badly under the same circumstances and in the same hospital? I can see no reason but the effusion of animal juices that takes place in incised wounds, which is prevented by the ecraseur. The incised wound produces less violence, and if everything is favorable, union by the first intention will follow, which cannot be expected of a wound by the ecraseur under the same favorable circumstances. The keen cutting instrument is far preferable in most, if not in all cases, and so far as any absorption of impure matter is dangerous, the effect can be entirely obviated by the application of ice in favorable cases, and if necessary, the application of the alum iron or per-chloride of iron, which arrests at once all oozing of the fluids, and produces a wholesome stimulant effect. These last two applications are only recommended when union by the first

intention is not expected, and when there is a general disposition to unhealthy inflammation.

I have been surprised at the readiness with which wounds heal when I have found it necessary to apply these potent styptics, and the uniform healthy character of the reaction after their use.

The ecrasure is better adapted to the removal of hæmorrhoids than anything else; but fifteen minutes to half an hour must be taken for each application, or there will be danger of hæmorrhage. I have been in the habit of using scissors, and applying immediately a sponge of suitable size, saturated with a strong solution of alum iron, which arrests the bleeding with certainty, and the parts give very little trouble afterwards. In a pure state, there is not much difference in effect between the per-chloride and the alum iron, but the per-chloride decomposes readily, gives down a sediment, and leaves an excess of acid, while the alum iron is always neutral.—Whether the French surgeons mean by purulent absorption the actual absorption into the circulation of pus, or mean to express a pyæmic condition, I am unable to determine, tho' it is certain that they do not mean that pus, in its natural state, is absorbed, for it is decided that this cannot take place. They apply it to that pyæmic condition which is attended by great depression, and the formation of matter in different parts of the body, which they attribute to the absorption of impure matter from wounds; it may be disintegrated pus, or other animal fluids. This never takes place in healthy and vigorous subjects, in which healthy exudation of lymph follows wounds, and it is quite plain that its frequency in the Paris hospitals is due, in a great measure, to the want of fresh air and proper nourishment. I speak of the deprivation of fresh air from personal observation, and judge of the diet from the general appearance of the patients. In the London hospitals, surgical patients presenting the appearance of the generality of those in the Paris hospitals, would be ordered beef, mutton, and porter or port wine, etc. This general poverty of the blood prevents adhesive inflamation, and leaves wounds in a condition to absorb the unhealthy fluids that form in them, and the general system in a state to be most seriously affected by it.

By proper preparation, by means of tonics, and proper diet, much may be done to prevent this unfavorable result.—Several years ago, and for several years, operations were disposed to take on a kind of diffusive, unhealthy, cellular inflamation, and in all cases that admitted of delay, I was in the

habit of preparing them, by the use of tonics and attention to the stomach and diet, and by these means I almost always avoided this unhealthy process. The late Professor Wedderburn, who was one of the visiting surgeons of the Charity Hospital, during the time referred to, made local applications for the same purposes. His usual application was a strong solution of sulph. quinine, with a slight excess of acid, and he thought it almost a specific. I believe it was of some service, but the more potent applications before mentioned, I am confident, are more sure, if the case should be imminent enough to warrant their use, and I hold that these applications would be warranted in all cases where union by the first intention cannot be expected, and when unhealthy inflamation is probable. These cases, however, are different from the cases of pyæmia in the Paris hospitals, and are probably due more to some epidemic poison and deterioration than to poverty of the blood. Pyæmia has also at times been prevalent, as if some epidemic influence was operating. Tonics, fresh air and proper nutriment constitute the general treatment, and stimulants or potent astringents are proper local applications, and very effective, at least as much so as the ecraseur.

CEREBRAL SYMPTOMS INDEPENDENT OF CEREBRAL DISEASES.

BY CHARLES WEST, M. D.

In a lecture delivered at the Hospital for Sick Children, in London, Dr. West made some general remarks upon the importance of distinguishing between diseases of children depending on cerebral causes, and those which presented merely cerebral symptoms. "Do you think his brain is affected?" is a question frequently asked, and the physician's reply must be governed by his knowledge of the distinctions between true cerebral disorder and that which simulates it. Heaviness, drowsiness, a feeling of unrest, are precursory symptoms of so many affections, that it becomes necessary to detect, if possible, their real import. The younger the child, of course the more difficult will be the diagnosis. Dr. West considers three or four important points:—

1st. "The cerebral symptoms that usher in the attack, or

accompany the early stages of fever." The more violent these are at first, the less likely they are to be dependent on disease of the brain; violent convulsions, for example, at this stage, being almost always connected with some morbid condition existing elsewhere. So, too, in the early stages of eruptive fevers, as measels and small-pox, convulsions of a violent nature occur, but disappear on the decided appearance of the eruption. When, however, very severe convulsions precede an attack of epidemic scarlatina, the prognosis may generally be formed of a malignant type of the disease. At a time when epidemic scarlet fever visited Dresden, in 1831 and 1832, cases were seen of intense cerebral disorder without any eruption, differing from inflamation of the brain in the rapidity of attack and in the absence of many of the symptoms, and yet, by post-mortem examination, the conclusion was arrived at that these were cases of scarlatina, in which death had taken place before time was given for the manifestation of the disease. Sometimes a question arises whether the affection of the little sufferer is tubercular hydrocephalus or typhoid fever; but the character of the cerebral symptoms is different, and age also may often determine the diagnosis; the younger the child the less likely the disease to be hydrocephalus.

2d. "Those [symptoms] which at the outset of acute inflamations of the thoracic viscera sometimes throw the evidence of the real disease into the shade." Pneumonia and pleurisy, for instance, occasionally commence with a convulsion and vomiting, and delirium may follow, while the cough may be slight. Looking at the preponderance of severe cerebral symptoms over the evidences of thoracic disorder, cerebral congestion, hydrocephalus, or typhoid fever may be alike erroneously diagnosticated. But the physician cannot long remain in error, especially if he has the diagnostic skill to recognise the absence of many of the symptoms of diseased brain.

3d. "Those [symptoms] dependent on some disorder of the abdominal viscera," etc. Convulsions from such causes depend often on the indigestible character of the food supplied to the child, but the history of the case, the condition of the abdomen, and the peculiar character of the convulsion will generally establish the diagnosis. In diarrhœas, and relapses of diarrhœas, a condition may supervene, where the case has been persistent, in which irritation and exhaustion may produce symptoms like those of inflammation of the brain—hydrocephaloid disease, a kind of spurious hydrocephalus.

The same condition may arise from the gradual influence of imperfect nutrition, the cerebral symptoms coming on slowly and insiduously. As fatal results may follow this imitative disease as attend true inflammation of the brain, and yet if a treatment be adopted which aims at correcting the cause, instead of one founded upon a faulty diagnosis, such results may be averted.

4th. "Chronic cases, in which cerebral symptoms occur and are likely to be misapprehended." Dr. West briefly sketches a few of these, such as temporary but long continued dulling of the faculties after fevers, altered temper, a precociousness which becomes alarming from its unexpectedness, neuralgic headache, so often thought to be the precursors of mental diseases in children, etc.

In these warnings against the errors which may so readily occur in a hurried diagnosis, Dr. West has given valuable hints and suggestions of dangers which may attend the practice of physicians of any age in their care and management of the young sick.—*Medical Times and Gazette.*

ON FŒTAL ASCULATION.

LETTER FROM DR. FRANCIS ADAMS TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir:—From the statements which have been made under the present head in this journal, it would appear, contrary to my expectation, that there is such a discrepancy in the views of the stethoscopists regarding the sounds detected by asculation of the heart and of the uterus, that I consider it necessary to determine, if possible with precision, what may be assumed as the generally admitted facts of the case, before attempting to settle those points about which a difference of opinion prevails, and which I am anxious to establish.

The following, then, would appear to be acknowledged and regarded by all the authorities, from Lænnec downwards, as the ratio which subsists between the pulse and the sounds of the heart, both in adults and in new born children:

Every arterial pulse at the wrist has synchronous with it an impulse in the cardiac region, and every impulse is accom-

panied by two sounds: first, by a loud, and more prolonged sound; and, secondly, by a feeble and more abrupt sound.—Pulse and impulse are recognized by the touch; the sounds, by the sense of hearing. Many people, indeed, find some difficulty in detecting the second sound, even in the adult state, but these are dismissed with a scornful notice by such distinguished stethoscopists as the late writer on fœtal auscultation in this journal. We may assume it, then, as being generally conceded that in the adult state the pulse and impulse range from 70 to 80, and the cardiac sounds from 70 to 80 double sounds, or from 140 to 160 single sounds. At birth, the highest authorities agree that the pulse is about 140, and consequently the cardiac sounds must be about 280; that is to say, 140 strong, and 140 feeble sounds. These are generally denominated the "tic-tac" sounds by the authorities; the "tic" meaning the strong, and the "tac" the feeble sounds. In utero no one pretends that generally either the one or the other is less frequent than at birth; and consequently we may venture to assume, as admitted, that at this period the "tic-tac" sounds, taken together, should range from 260 to 280 per minute.*

Whenever, then, an auscultator in the abdominal regions detects regularly such a low number of single sounds as 160, there can be no question that these are to be referred not to the fœtal, but to the maternal heart; at all events, most certainly not to the former. Whether, indeed, the fact be absolutely and unquestionably as stated by the celebrated auscultator in the far North, we shall not pretend to affirm or deny, but this point settled, and the inference is irresistible that these 160 single sounds cannot have proceeded from the fœtal heart. No, no; this is the standard of the adult, and not of the fœtal heart. And, by-the-way, it may be that this is the

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* The writer referred to above, (*Medical Times and Gazette*, November 5th) makes the singular averment that "Dr. Adams is the first who affirmed that from 130 to 160 beats could be distinguished." Now this I do not affirm, but I do say that the authorities, from the first writer on it perhaps in this country (see Cyclop. of Med., p. 242) down to the latest authority, Dr. Ferguson, all speak of the fœtal sounds being double, and of excessive frequency; and the latter mentions "the tic-tac sound repeated 140 times per minute." Surely 140 brace of grouse means 280 birds all the world over! When this writer talks of 60 to 80 maternal pulsations in the minute, surely he who contends so strongly for the distinctness of the second sound of the heart, does not mean to say that this is the amount of the adult sounds. He does not mean surely that there are 30 loud and 30 feeble sounds, but 60 loud and 60 feeble ones. Altogether, however, he evidently confounds beats with sounds. But sounds are double the number of beats.

true explanation of the mistake committed by the learned auscultator in the case of spurious pregnancy related by Dr. Simpson, who may have fallen into the same mistake as our Northern auscultator in confounding the average standard with that of the fœtal heart. We think, then, the question is, in so far, set at rest, that granted 160 single sounds can be regularly detected in auscultation of the pelvic region, no one has a right to infer therefrom the existence of a living fœtal heart in that quarter.

But, it will be here asked, what if about 140 double tic-tac sounds can be detected per minute in the pelvic region, is not this an absolute and unmistakable mark that a living fœtal heart must exist within? Dr. R. Fergusson, in his Preparatory Essay to Dr. Gouch's work "On the Most Important Diseases of Women," lately published by the New Sydenham Society, answers this question in the negative. In the first place, "it is often not found;" and even when discovered, it is no certain mark of pregnancy, as the following case proves beyond controversy:

A poor girl was violated: her belly enlarged; and she was supposed to be pregnant; and, no wonder, seeing the tic-tac sound could be heard 140 times a minute. Yet it turned out to be a serous collection, as was ascertained by tapping with a trocar. It appears, therefore, that whether the allotted number of sounds be regarded as single or double, in neither case are they any certain mark of pregnancy.

We must now say a few words respecting what is usually called the *placental soufflet;* and here again we must come to an understanding regarding the general facts involved in this question.

Bellows sounds, or *bruits de soufflet*, (sounds which have not inaptly been compared to those of a locomotive just about to start on a journey,) are generally admitted to be produced more especially by the pressure of the stethoscope on enlarged vessels, whether arterial or venous, but also not unfrequently as I myself can attest, by muscular contraction, and the passage of air through an internal tube, such as the trachea in the neck, or the intestinal canal in the abdomen. Altogether these soufflets are admitted to be very fallacious guides in diagnosis; for what physician is there of experience who has not known very many cases in which vasular tumors have been thus diagnosed aneurisms, and *vice versa?* Few can have had many opportunities of seeing abdominal tumors, and not met with cases in which they were accompanied with strong *bruits de soufflet.* (See Cyclopedia of Medicine, vol. iii.

pp. 484, 485.) Dr. Meigs thus expresses the result of his experience in this matter: "As to the value of the *bruit de soufflet* in the diagnosis of pregnancy, it has been found that the earlier opinions were erroneous; and I believe there are few well-informed physicians to be now met with who give it even the smallest portion of their confidence in the unfacile discriminations that they are sometimes charged to make.—It is not to be doubted that the sound is produced by the rush of blood in vessels, and, in my opinion, sustained by a very long practice in obstetric auscultation, it depends upon the motion of the blood in the iliacs and hypogastrics. I have certainly heard the same sound after delivery as before the child was born, and I have heard it as dependent upon pressure by tumors within the abdomen. Hence I have not the least confidence in it as an object in obstetric auscultation." (*Obstetrics*, p. 240.) Dr. Fergusson, in the work quoted above, expresses himself to the same effect in the strongest terms. He has known it produced by pelvic tumors in cases of putrid fœtuses and morbid placenta; hence he holds that "it affords no diagnostic mark as to fœtal or placentry development."

After all this, what can we think of the Northen auscultator who, on the contrary, affirms that "scarcely any one at the present day entertains a doubt that in almost every case of pregnancy after the seventh month, both the pulsations of the fœtal heart and the *placental soufflet* can, with a moderate degree of care, be readily distinguished," and "that there is no possibility of a mistake being committed here;" for that "the sound of the fœtal heart can by no stretch of imagination, no flight of fancy, no exercise of faith, no intensity of impression, be confounded with any other: it is a sound *per se?*"

I am confident the writer of these sentences stands alone, at the present day, in holding the strong opinions here announced; and I shall only beg leave to add that I trust he does not reduce them to practice himself, nor encourage the youth of the profession to do so. For most assuredly if the young practitioners of the obstetric art regard it as a rule that whenever, in attending cases of protracted labor, they cannot with moderate care detect a soufflet and 160 sounds in the pelvic regions, they are quite warranted in dealing with the child as a dead body, and in applying the perforator to its head; they will soon become familiar with sights which will fill their hearts with sorrow and cover their faces with shame; sights which I forbear to describe, although I have both heard and read of such cases; but I feel grateful to Providence that

albeit I am denounced as the holder of heterodox doctrines in obstetrical stethoscopy, I never was condemned to witness any such in my own practice.

With regard, then, to fœtal ascultation, I think the following points have been satisfactorily determined:—

1. That the cases of spurious pregnancy related by Dr. Simpson, in which eminent ascultators fancied they could detect the double sounds of a fœtal heart when there were none present, and the various other instances of a similar character related above, all go to prove that this process of diagnosis is not at all to be relied upon as a test of pregnancy.

2. That the leading facts of the case are so differently stated by different individuals as to put it beyond doubt that these statements must have been much modified by previous impressions and modes of faith.

3. That since soufflets are often heard in tne case of pelvic tumors, after delivery, and when the fœtus is putrid and the placenta morbid, they cannot be regarded as placentral, or as indicative of pregnancy at all.

4. That the sounds detected in the uteral region, unless double, cannot have been cardiac, nor, unless double the arterial pulse of the fœtus, can they have been connected with its heart, consequently that such an amount as from 140 to 160 single sounds cannot be referred to the fœtal heart.

5. That one of the authorities for fœtal asculation admits candidly that even this number of 140 double or tic-tac sounds is often not present in pregnancy; and, on the other hand, that it is sometimes present when there is no fœtus in utero.

6. That the fœtal heart is so surronnded by a large mass of dense maternal structures and blood-vessels, and by the solid limbs and organs of the child, that it seems next to incredible that any sound emitted by it could ever reach the ear of an auscultator.

7. That the whole system of the fœtal auscultation originated soon after the dawn of general auscultation, when men's minds were excited by the love of novelty, and warped by many erroneous impressions and mistaken modes of thinking, and has since been mainly upheld by authority.

SULPHUROUS VAPOR BATHS IN CHRONIC RHEUMATISM.

BY DR. G. L. PURDY.

All practitioners of much experience, are aware of the obstinacy of the affection—chronic Rheumatism, how slow it is to yield to remedies, and how often it entirely defies the whole array of Therapuetics. And under these circumstances any means that tends towards its alleviation or cure ought to be promulgated amongst the profession, and used for the benefit of the sufferers from this disease.

The treatment of chronic rheumatism by the sulphurous vapor baths, is reported by James Williams, M. D., in the London *Lancet* for August 1858, and in the thirty-eighth No. of Braithwait's Retrospect the same thing is upon record.

I shall not attempt to enter into the pathology of this disease, nor the modus operandi of the treatment, but will merely make up a short report of a case in which I used the bath as an adjuvant to other means, with a successful result, after the disease had resisted similar means, unaided by the bath.

Dr. Williams describes an apparatus for the administration of the bath, but it can be used without going to all this trouble.

I had my patient stripped to the skin, and seated on a tight-bottomed chair—thickly enveloped with flannel blankets from the shoulders downwards. Place the blankets tightly around the neck, and have them fit snugly to the floor, around the patient's chair,—but as far from it as you conveienty can, so their will be no danger of their taking fire from the flame of the sulphur. Now place under the patient's chair an iron vessel containing one-fourth of an ounce of sublimed sulphur of the shops, and upon the sulphur, place a small piece of red hot iron, and combustion immediately takes place. If the vapor should escape through the blankets too much, and thus annoy the patient, place a covering around him, or keep the vapor from the face with a fan.

The patient should be thus vaporised 20 or 30 minutes, or until a very free perspiration is got up. If the sulphur burns out too soon add some more. When the bath is discontinued have the blankets removed, and the patient well sprinkled with a half gallon of cold salt water, and thoroughly dried with brisk friction, and placed in a bed, warmly covered for three hours. The bath should be used once every second or third day.

Mrs. Y. aged about 30, was attacked last March with rheumatism of the left hip, knee and ankle joints, incapacitating her from going about, except by the aid of crutches;—sometimes she could not even use these for days at a time.

From what I could learn, the disease was rather of the acute character at the commencement. She was treated for six weeks by a medical friend, of a neighboring village, who subjected her to all the remedies usually applied in such cases but with very little benefit.

She then underwent a two months course of infinitesimal homœopathy, but received no beneficial results. The Homœopathist promised to cure in two weeks.

From this time, until the 12th of last August, she went the rounds of home-made and patent medicines, the results as before—no benefit of a permaent character.

I was called to visit her for the first time on the 12th of last August, and found her almost helpless from inability to use the left leg, the joints being quite sensative to the touch, especially the hip joint. She was very much exhausted and worn down from loss of sleep and irritation. Being favorably impressed by Dr. Williams' paper on the Sulphurous Vapor Bath, I determined to give it a trial in this case. I therefore subjected her to its influence every third day, and gave her 10 grs. pulvo gum guaiac, and 1 gr. pulvo sem colchicum, three times a day. Under this treatment, and a succession of blisters around the hip joint, she gradually and steadily improved.

By the 25th of September, she could walk without crutches. I now changed the guaiac and colchicum, for the compt syrup sarsaparilla, and iodide potassa. This course was continued for three weeks longer, but the bath was used only once a week since the 25th of September, and discontinued on the 15th of October, when she was well enough to do her own house-work, and discharged her hired girl. She continued the use of the sarsaparilla and iodide potassa for three weeks longer. As she appeared well, the medicine was discontinued at that time. I frequently hear from her, and her health remains good. I attributed the chief part of her recovery to the sulpurous vapor bath, for in a conversation with the first attending physician, he told me that he had given her colchicum, guaiacum, iodide potassa, and may other remedies.

I have given a very condensed account of the case, and yet I think extensive enough, to give an opportunity to see the effects of the bath in this obstinate case of chronic rheumatism. —*Cleveland Medical Gazette.*

CASE OF ABSCESS OF PAROTID GLAND,

REPORTED BY J. LYKINS, M. D., OF KANSAS CITY, MO.

In August, 185–, Mr. J. J. a respectable farmer, aged 45, was attacked with congestive fever, ushered in by a chill. Upon the invasion of second chill, I was called to see the patient. Found the extremities cold, pulse hardly perceptible, patient unconscious, passing involuntary stools, etc. By the most prompt and energetic treatment, after three hours effort, pulse rose and fever set up.

2nd day.—Kept patient under the influence of free portions of quinine, remained with him three or four hours, preceding and during the time of expected chill; patient escaped both chill and fever, and was dismissed as requiring no further treatment.

4th day, 4 o'clock, P. M.—Was called in great haste to the patient, found him suffering most intense pain, and upon examination found its seat to be the Parotid Gland, which proved to be slightly enlarged and too painful to be touched. The patient having been subjected to a vigorous treatment of Sub. Mur. Hydrg. and Sulph. Quin. in order to break up the fever, was put upon the use of saline cathartics and the usual lotions externally.

6th day.—Jaws fixed, gland greatly enlarged, general tumefaction much increased, jaws too rigid to admit of anything entering the mouth except fluids; patient delirious. Prescribed castor oil to be followed by quinine, external applications the same.

7th, 8th, and 9th days.—Treatment continued, left eye closed by swelling, articulation suspended.

10th and 11th days.—Prognosis hopelessly unfavorable; called in Drs. Boggs & Caldwell, both of whom agreed without hesitation, in pronouncing the case one of Abscess of the Parotid Gland, supervening upon the congestive stages through which the patient had passed during the first attack.

12th and 13th days.—Tumor purple; first indications of pus deeply seated.

14th day.—Minute portions of purulent matter escaping from the ear, with indications of pus pointing over the centre of the gland.

15th day.—Introduced lancet, pus was reached easily, but escaped slowly.

16th day.—Patient feeble, discharging enormous quantity of dark, morbid bile, from the bowels; no relaxation of the jaws; treatment continued.

17th day.—Plunged lancet into the tumor, anterior to the ramus of the lower jaw, below the masseter muscle; as before reached the pus, but it would not flow. Flax-seed meal poultice applied.

18th, 19th, and 20th days.—Pus tenacious, escaping slowly, skin sloughed away below the ear to the angle of the jaw, exposing viscid pus adherent by cellular tissue, and resembling end of grass rope.

21st and 22d days.—Jaws slightly relaxed, swelling abated partially, patient desires food, is more rational.

23rd, 24th and 25th days.—Slough enlarged, discharge exceedingly offensive.

26th, 27th and 28th days.—Takes soup freely, and desires meat, improving; tonics continued.

29th, 30th and 31st days.—Opening under the ear enlarging pendant from which hangs the suppurating inferior portion of the Parotid Gland. Attempted to cut it away with Surgeons' scissors; so resistant as to cause the scissor blades to chew; left side of the face paralysed, and cheek drawn aside.

32nd and 33rd days.—Patient rapidly improving, jaws are partially moveable; succeeded in removing a portion of destroyed Gland, which brought away with it the trunk of the Portio dura and its branches Temporo facial and cervico facial, the external carotid artery, etc.

34th day.—Patient continues to improve; Gland slowly coming away. This continued many weeks; at last the ulcer healed, and the patient regained his health.

Happily for us this patient now resides near our city, and to an examinaton of the cicatrix, and to the evident absence of the Parotid Gland, I beg leave to invite the attention of the Editors of this Medical Journal. I do this with the more interest as Dr. Titus Deville in the Chicago *Medical Examiner* has denied that the Parotid Gland is liable to disease, and has thereby in my opinion, convicted himself of the ignorance which he has charged upon Prof. Brainard.

Dr. Caldwell of Independence, a most intelligent Physician at the time of the above related case, informed me that he had in this country witnessed two cases of abscess of Parotid Gland, consequent upon congestive fever, both of which proved fatal.—*Kansas City Med. and Surg. Review.*

FUNIS PRESENTATION.

THREE CASES TREATED SUCCESSFULLY BY THE POSTURE METHOD.

BY S. BRANDIES, M. D., LOUISVILLE, KY.

Case I.—Mrs. Katharine Rehm, aged thirty, a native of Germany, and who has borne four children, (one of which was still-born in conseqenc of prolapse of the funis,) was seized with her fifth labor on the first day of July, 1858, at 4 o'clock, A. M. At 5 o'clock the membranes ruptured, followed by a full gush of liquor amnii, which carried forward with it a long loop of the funis and the right hand. The midwife in attendance, having discovered the mischief, sent immediately for my assistance.

I reached the patient within ten minutes, and found the funis, feebly pulsating, outside of the genitals, the hand within, and the head balloting high above the entrance of the pelvis. Remembering a plan suggested by Dr. Thomas, of New York, I forthwith placed the parturient on her knees and elbows, supporting the body with pillows in such a way that the pelvis was a good deal higher than the chest.

With slow and careful manipulations I succeeded in replacing both funis and arm far beyond the head, while I kept my hand within the cavity of the womb in order to prevent a further prolapse. Strong labor pains set in, and, soon after, the head engaged so firmly in the superior entrance of the pelvis that all apprehension of a procedentia of the funis vanished. The patient was now placed on her back, labor proceeded rapidly, and three-quarters of an hour later a living child (a boy) was born.

The patient did very well afterwards. The placenta was spontaneously expelled, there was very little after-pain, and recovery took place rapidly. The child is now eighteen months old, vigorous and healthy.

Case II.—Mrs. Katharine Rapp, aged thirty-six, a native of Germany, a stout and healthy woman, and the mother of four children, was taken with labor pains at eight o'clock, P. M., October 12th, 1859. Soon after the arrival of the midwife the membranes ruptured, and a loop of the funis and the hand presented. I was summoned to the case at 11 o'clock, P. M. On examination, I found the midwife's diagnosis correct: the hand was the left one; the loop of the funis, still pulsating, was about three inches long; whilst the head was high above the entrance of the pelvis. The method described

in Case I, was immediately carried into operation. The reposition of the parts prolapsed was accomplished in about ten minutes. Labor pains were rather slow for about three-quarters of an hour, and the patient, having been so very much fatigued by her uncomfortable posture, was permitted to lie on her left side with a high pillow under her hips. The pulsation of the child's heart, which had been very feeble, now recovered its full strength, labor pains re-appeared, the head engaged firmly in the pelvis, no further prolapsus occurred, and, at half-past twelve, a loud crying child (a boy, eleven pounds in weight) made its appearance. Childbed proceeded without the least disturbance. The child is now four months old.

Case III.—Mrs. Elizabeth Bohn, aged thirty-six, native of Germany, of vigorous frame, but somewhat reduced by a bronchial catarrh which persisted during the later months of gestation, sent for a midwife at eleven P. M., February 3d, 1860. The pains were so slow and feeble that patient and widwife slept several hours during the night. At five oclock A. M., contractions of the womb re-appeared more forcibly, the membranes ruptured, after which the midwife discovered the funis projecting through the os uteri, but could not find any fœtal part presenting. My assistance was called for at seven o'clock A. M., February 4th, 1860.

On examination, I found the funis in from four to five small loops projecting through the os uteri, which was only partially dilated; the head, being high above the pelvis, I could discover only by introducing my full hand.

After placing the patient in the position already described, efforts were made to replace the funis, which was more difficult in this case than in the two former, as several loops were projecting, and one would drop down while another was carried up; but nevertheless the aim was accomplished in a very short time, and the operating hand kept within the uterus in order to prevent another prolapsus. In the meantime, uterine contractions propelled the head into the pelvis. The patient was now placed once more on her back, (to her great comfort,) and ascultation soon convinced me of the child's life.

Labor proceeded rapidly, and at a quarter-past eight, A. M., one hour after my arrival, a crying child proclaimed to me once more the success of the operation.

The patient had some after-pains, which yielded to slight medication. She is now doing well.

A few remarks on the merits of the operation employed in the cases just reported, will be permitted.

The presentation, or rather the prolapsus of the funis, is by all authorities in the art of accouchment, considered as a complication most disastrous to the life of the fœtus, and the great variety of contrivances invented for the occurrence is the most eloquent testimony for the difficulty of its removal.

The space granted to this paper does not permit the reporter, nor is it his aim, to go into a detail of the various modes of treatment, but it may be remarked, that not only the life of the fœtus, but the life as well as health of the mother is often endangered or lost through the severe operation—forceps, version, and craniotomy—often resorted to, after repeated efforts have failed to replace the funis.

The following table, collected from the highest authorities, shows the numerical proportion of this occurrence:—

Collins,	16152	cases of	labor.	97	funis	presentations.	1	out of	165
Churchill,	90983	"	"	322	"	"	1	"	282
Michælis,	2400	"	"	27	"	"	1	"	88
Boivin,	20357	"	"	38	"	"	1	"	535
LaChapelle,	15652	"	"	41	"	"	1	"	411
Hardy and McClintock	6702	"	"	37	"	"	1	"	181
Klein,	5490	"	"	55	"	"	1	"	100
Barstch,	4425	"	"	16	"	"	1	"	276
Arneth,	6608	"	"	33	"	"	1	"	200
Skanzoni,	8415	"	"	29	"	"	1	"	290

Out of 177,184 accouchments, which is the total amount of the figures just referred to, prolapsus of the funis occurred 695 times, giving a proportion of 1:264, showing that this anomaly is one of the most frequent disturbances of labor.

Another table will show the relative mortality of children born under these circumstances:

	Prolapsus of Funis.	Children Still-born.
Mauriceau.	39	15
De la Motte,	14	5
Clarke,	66	49
Collins,	97	24
Churchill,	322	220
Hardy and McClintock,	37	25
LaChapelle,	41	8
Michælis,	27	20
Boivin,	38	18
Arneth,	33	11
Skanzoni,	29	13
	743	408

Thus, 743 cases of prolapsus funis gave 408 still-born children, a proportion of 1:1.82, which shows clearly enough that accouchers have not been very successful in treating this kind of labor.

The rationale of the posture method being obvious to every skillful practitioner, we shall, in conclusion, try to give the indications for it.

First: The operation is only admissible as long as circulation exists in the funis; even if the circulation is feeble, it may soon be restored after the impediment is removed.

Second: The os uteri must be sufficiently ditated or dilatable.

Third: The liquor amnii must be partly retained; otherwise, if it should all have escaped, and the uterus be firmly contracted over the child's body, every effort for the reduction of the prolapsed funis would be in vain.

THE VACCINATION CASES AT WESTFORD.

Much excitement has lately been caused in Westford and its vicinity, by the serious effects which have followed several cases of vaccinatien in that town. From the report made at the last meeting of the Boston Society for Medical Improvement, it appears that the matter used consisted of crusts, taken from healthy persons, and having every appearance of being perfectly good. In preparing these for use, two or three were dissolved in a small quantity of snow water, this solution being kept in a vial, which was carried in the pocket. A thread soaked in this was the medium of introduction.

From this solution twenty-eight persons were vaccinated on the day it was thus prepared (Feb. 11th), and no bad results followed. On the 18th, one week after, twenty-seven or eight others were vaccinated with the same material. Five of thes were seriously affected with constitutional symptoms, followed by violent erysipelas of the whole arm, both external and cellular, and sloughing. Three days later, two more persons were vaccinated from the same vial, both of whom have since died.

It was the opinion of nearly all present at the time of the report, that the cause of these results arose from the decom-

position of the animal matter in the solution, and that to this and not to any inherent peculiarity in the matter, nor to the mode of application, were to be attributed the unlooked-for and dangerous results which have followed.

That the symptoms were due to some *change in the matter, subsequent to its preparation*, is evident from the fact that those first vaccinated exhibited nothing unusual, while the symptoms of blood-poisoning were most marked in those last inoculated with the virus.

That the matter had commenced to undergo the putrefactive change, was evident from the odor, which was extremely offensive, so that the opinion generally entertained is obviously the correct one, that the symptoms were due to the introduction of putrid animal matter, and cannot be attributable to anything in the matter itself as originally obtained, nor in any peculiar atmospheric condition, of which there was no evidence.—*Boston Med. and Surgical Journal.*

CLOSURE OF THE FONTANELLES.

Physicians are often questioned about the proper time for the closure of the anterior fotanelle, and it may be difficult for some to answer, since the best anatomist are at variance on this point. We therefore think that it may not be unacceptable to give a summary of some recent observations, by Henri Roger, in the *Union Medicale* for November, 1859.

The researches are based upon the fact, that a cephalic souffle is not heard when the opening is closed by bone.

In three hundred children the anterior fontanelle was never found closed before the age of fifteen months, and never opened after the age of three years.

It must be stated, however, that a distinction is to be made between the clinical and anatomical closure—the first being recognizable during life, the second after death.

In the first case, that is the clinical closure, the size of the closure gradually diminishes, while, at the same time, the membrane becomes thicker until it finally feels like bone. When this takes place, the cephalic souffle is no longer perceptible. The only method of determining the absolute closure by bone, is to examine the dead body. Still, we may assume, that when the fontanelles appear to be closed by ossification, they really are so.

The results arrived at in the manner above mentioned, are as follows: The period of ossification is comprised between the ages of fifteen months and three years and a half. At the first age, the complete change is very rare; at the last, is always found. But these are the extremes. The occlusion generally takes place between the second and third year, and its frequency is regularly progressive from the twentieth to the twenty-third month, increases rapidly after the second year, and still constantly augments until the age of three and a half years.

Two diseases retard this change—rickets and hydrocephalus; the first by its influence upon the ossific process, the second by its mechanical action. The non-closure of the fontanelles at the usual time may be one of the first manifestations of rickets, and warn us of the approach of the disease.—*Boston Med. and Surg. Journal.*

COMPARISON

OF THE FATALITY OF SOME OF THE DISEASES OF LONDON NOW AND IN THE SEVENTEENTH CENTURY.

The Medical *Times and Gazette* copies the following from the report of the Registrar General: The diseases were not always distinguished accurately; but by putting them in groups any fallacy from this source will be obviated, and the decrease of some of the worst forms of mortal disease will be placed beyond doubt. To render the comparison easy, the number living is taken to be the same in two periods, 100,000 in 1660 and 1679 and in 1859. The annual deaths by small-pox were 357 in the first period, 42 in the second period; by measles 40 and 47 in the two periods. Medical science was imperfect, and the science existed in that century was very imperfectly applied. Croup and scarlatina were not generally recognized, but were confounded with measles and fever. The mortality by fever, continued or remittant, and ague was at the rate of 749 and 59 in the two periods; or including scarlatina, croup and quinsy, the mortality was 759 and 227. Thus a person was in four times as much danger of dying of these diseases at the Restoration as a person living in London now. Women are not yet entirely exempt from peril in child-bearing; the mortality of this disease is now 17, it was then 86. Again a

few (8) in 100,000 die now of dysentety; then out of the same number, 753 died annually of that disease. By diarrhœa, a milder form of disease, 11 died then, 120 die now; cholera was fatal in 1859 to 7, and in the 20 years (1660–79) to 130 annually. Syphilis was twice as fatal as it is, the numbers being 21 and 12. Scurvy and purpura bear testimony to the imperfect nutrition of the population; the annual deaths were then 142, and are now 2. Vegetables, fruit, and fresh meat, could with difficulty be procured in Winter. Worms, and all parasitic creatures that crawl over, bite, and prey on the body of man, were prevalent; 10 deaths were ascribed to worms. Dropsy, a result and sign of scurvy and fever, was exceedingly fatal; 298 died of that disease then, and 26 now. Apoplexy, paralysis, epilepsy, affections of the brain, and suicide, are more fatal now, according to the returns, than they were in the proportion of 57 then to 151 now. Consumption and diseases of the breathing organs were uncommonly fatal: 1079 then and 611 now are the figures of the mortality. Diseases of the digestive organs were fatal then and now in the proportion of 146 and 95. Stone and diseases of the urinary organs are not now as fatal as they were then; the deaths being 21 and 30. Children were rapidly cut down: of convulsions and teething, 1175 died then, 136—too many—now. —*Med. and Surg. Reporter.*

ON THE VARIOUS FORMS OF VULVITIS.

BY DR. SIMPSON, PROFESSOR OF MIDWIFERY IN THE UNIVERSITY OF EDINBURGH.

The vulva is liable to other types of inflammation besides the simple inflammatory or phlegmonous, and also quite independently of any syphilitic origin. Various forms of eruptive inflammation are liable to appear in this part of the body, and particularly in some females at the menstrual period, and in others in consequence of the acridity of the discharges which may pass from the vagina at other times, and under states of internal disease. Thus, these parts are the occasional seat of attacks of erythema, eczema, &c. Herpes occasionally appears, generally after some constitutional disorder, on the external labia or vulva, of the same form and

running the same course as herpes labialis, or rather, as herpes preputialis in the male. Dr. Simpson has seen also very distinct herpes upon the cervix uteri. Various other forms of acute and inflammatory eruption may appear in these parts, but they require no special notice, as they require no treatment specially different from the same diseases when situated elsewhere. One of the most common varieties of eruption on the vulva consists of an affection like acne, *i. e.*, it consists of scattered tubercles, sometimes of considerable size, formed by inflammation of the follicles of the vulva and nymphæ. But there are some forms of specific inflammation, if we may so call them, of the vulva, some varieties of vulvitis, if we may so speak, which call more particularly for notice, such as palpillary vulvitis, purulent vulvitis, (which is liable to occur in infants) gangrenous vulvitis, or noma, &c.

1. *Papillary Vulvitis.*—This is a form of chronic inflammatory disease of the vulva which is fortunately not very frequently met with in practice, but when it does occur, it is usually accompanied with much distress, and is often very obstinate in the way of cure. By this term, papillary vulvitis, I mean a chronic inflammatory affection of the mucous membrane of the vulva, and sometimes of the vagina, in which that membrane presents an intensly red color, either in raised red patches on the edge of the lower vaginal folds, on the tips of the carunculæ mytiformes, or the nymphæ, or on the sides of the vulva, or more generally diffused over a large portion of the surface of the vulva. On these red patches or surfaces you find, on examination, the enlarged mucous papillæ standing out like the swollen villi of a raw and irritable tongue. Often some of the most elongated papillæ bleed at their tip when touched. Any rough pressure of the vulva gives pain to the patient. The disease may be found in the unmarried, but not frequently; it comes on after marriage, and produces such tenderness of the parts that sexual connection is attended with much suffering, or becomes impossible. Usually, indeed, there is a sort of spasmodic contraction of the orifice of the vagina aggravating the evil. Along with the red and enlarged papillæ you will sometimes, but not always, find intersperced the small follicular glands of the vulva, swollen and inflamed, and sometimes ulcerated.

Treatment.—Patients affected with this disease anxiously demand professional relief, as their happiness as well as their health is sometimes destroyed by it, and the treatment, as I have already hinted, is sometimes by no means easy. I have

known the diseased surface treated heroically and perseveringly with a repetition of strong caustics; but the simplest and surest mode of cure, according to my experience, consists in the continued use of local astringent measures, combined when necessary with sedatives, such as a strong solution or liniment of tannin frequently applied during the day, and with morphia or other sedatives added to it. Or you may dissolve your astringent in glycerine, and in this form it will remain more permanently in contact with the diseased surface. Latterly, I have trusted principally to the daily free application of a saturated solution of perchloride of iron in glycerine—an application producing little, or indeed no pain—and, I think, with the happiest effects. General tonics, warm bathing, &c., must not at the same time be forgotten.

2. *Purulent Vulvitis, or Leucorrhœa in Infants.*—This is a form of inflammation of the vulva which is by no means infrequent in female infants and children. It is, perhaps, however, more interesting and important in its medical jurisprudence relations than in its purely practical aspect; for, very often, especially when it occurs in patients of the lower orders, the disease is properly imagined, by the relatives and friends of those attacked, to be the result of veneral infection. The child is brought to a medical practitioner, under the idea that he will confirm this unhappy and dangerous notion. An excitable mother will, by threats and by suggestive and leading questions, get the frightened child to own some absurd and groundless tale, in confirmation of her maternal theory of the origin of the malady; and no doubt men have been repeatedly tried, and convicted, too, of imparting this disease to young children, by forced sexual connection, when they were totally innocent of such a crime, and when the affection had totally a different origin; for the purulent vulvitis, or leucorrhœa, seen in young female children, has, as a general rule, no more an impure sexual origin than has the inflammation of the eyes, throat or lungs. Like most other local inflammations, it usually arises first from some degree of deranged or impaired generel health in the patient, and secondly from the patient, when in this, it may be quite temporarily, depressed condition, being exposed to cold and wet, or the other exciting causes of inflammation. Want of cleanliness, the irritation of acid urine, &c., sometimes act as a local exciting cause. Like angina, diphtherite, and some forms of catarrh and dysentery, this inflammation of the mucous membrane of the vulva, like those inflammations which I have named of the mucous, pulmonary, and intestinal mem-

brane, attacks more than one child in the same family, and may even prove partially endemic or epidemic in a district.

Symptoms and Course.—The disease usually begins with a local heat and itching; some degree of redness and swelling; pain and scalding in passing water, and sometimes uneasiness in walking; but for the first twelve or twenty-four hours, there is no discharge from the mucous membrane.—But you will seldom see the disease in this early stage. Almost always you are called upon to see or prescribe for the patient, because the affection has so far run on in its course, that there is already more or less discharge from the vulva. The discharge is, at first, of a thin mucous character, but rapidly becomes purulent and yellow, or yellowish-green in its tint. Occasionally the discharge becomes extremely profuse. It is apt to become thick and hardened along the outer edges of the external labia, binding these opposed edges slightly together by a kind of imperfect crescentic crust; but when the labiæ are drawn asunder, the whole surface of the vulva is found to be covered over by a layer of the liquid puriform secretion. The disease very rarely extends upwards into either the vaginal or urethral canals. Occasionally there is, at points, an appearance of vesicular or pustular eruption; and, indeed, some type of mucous eruption in the part would probably be discerned as a common, if not constant phenomenon, if we had an opportunity of searching for it early in the course of the disease. Sometimes, but by no means frequently, there supervene one or two spots of ulceration, especially towards the orifice of the vagina.

Treatment.—Acute infantile leucorrœa shows, like many other analagous ailments, a natural tendency to run throug a definite, and often not a very long course, and has a natural tendency to end in a spontaneous cure. But if not arrested, it sometimes ends in a chronic, protracted form of discharge; and our medical interference is required, not only to prevent this termination, but also to relieve the patient from the immediate distress and annoyance which the disease produces.

In the first stages of the affection you will often find your patient requiring some little constitutional treatment. A dose of calomel, or grey powder, with a few grains of some aperient alkali, as magnesia, is sometimes all that is necessary; but it may require to be repeated. If the discharge becomes protracted, chalybeates or other tonics may become necessary. Use, in short, your constitutional remedies here as elsewhere,

to bring the constitution and its principal functions as far as possible to the normal standard of health and cure the local disease by appropriate local applications.

In the earlier and more inflammatory periods of the disease, use locally to the vulva sedative applications; in the latter periods, and for the purpose of reducing and arresting the attendant discharge, use astringent applications. And you may employ these local applications in the form of lotions, or liniments, or ointments.

Frequent ablution with warm water, or warm milk and water, is one of the best and most soothing applications; and sitting in a warm cup-bath during micturition, is one of the surest means of relieving the pain and scalding attendant on the passage of the urine. A solution of acetate of lead and one grain of acetate of morphia to the ounce of water, makes a good sedative lotion where there is much local smarting and pain; or you may use a weak solution of borax, or of nitrate of silver. When sedative lotions are preferred, it is generally necessary to leave a slip of charpie, or lint, wetted with them, between the labia.

But I think you will find the local affection more manageable under sedative liniments; as by applying several times a day, with a brush or feather, cold cream, with, if you think fit, a little morphia added to it; or a liniment made of equal parts of olive oil and lime-water. Liniments are more lasting as local applications than lotions; and not so liable as ointments to fret or irritate.

But the time soon arrives when you must add local astringent remedies to the sedative, or substitute the former entirely for the latter. With this view, use tannin or sulphate of zinc, or aluminated iron, or any analogous astringent, in the form of a lotion or liniment; but take care not to use them of such strength that they prove irritant in their action, so as to force you back again, for a day or two, to the sedative treatment.

3. *Gangrenous Vulvitis or Noma.*—A variety of vulvitis seen sometimes, but fortunately very rarely, in practice, which generally begins with erythematous inflammation of the vulva, and the formation of one or two blisters or bullæ, and rapidly runs into one of gangrene and phagedæna. This gangrenous vulvitis has been seen in adults as a complication in particular epidemics of puerperal fever; and in infants it has been observed either under an epidemic form, like epidemic gangrenous or malignant sore throat; or in isolated cases—most frequently as a sequela of scarlatina, measels, and other

debilitating forms of ferbrile disease—or as a result of some constitutional cachexia. The disease not unfrequently runs on to a fatal termination.

Treatment.—You will generally find your patient requiring early, or even from the first, stimulants and quinine. If these are not yet called for, trust to considerable doses of chlorate of potass; or of this and muriate of iron, every two or three hours. Apply poultices and sedatives locally in the early stages of the disease, at least. The progress of the gangrene has, it is said, been sometimes arrested, or appeared to be arrested, by the application of nitric acid, &c.

4. *Prurigenous Vulvitis.*—Not unfrequently a prurigenous eruption appears on the mucous membrane of the vulva, and extends up along the vagina as far as the cervix uteri. It extends also often, and is sometimes, indeed, originally situated on the cutaneous border of the vulva, and appears on the outer cutaneoes surface of the labium, spreading backwards along the perineum to the circle of the anus. Occasionally, it is a flitting and transient affection, recurring with menstruation, pregnancy, or delivery. But patients will apply to you, from time to time, in whom the disease has become more chronic and fixed, having lasted for weeks, or months, or even years, producing almost constant irritation and distress; frequently interfering with rest and sleep, and rendering the victims of it miserable and almost deranged.—When the disease has become somewhat chronic, and necessitates the patient to attempt to alleviate it by constant and sometimes rough friction, you will find the mucous and even the cutaneous surface, at the most irritated parts, white and thickened with red fissures, and scratches appearing on the affected part. I have spoken of the disease as fundamentally prurigenous; and we can often see on the affected surface a small papular, and sometimes a vesicular, or even aphthous eruption; but cases ever and anon occur, of severe pruritus in these parts, without your being able to trace in them any distinct eruptive appearance.

Treatment.—Prurigenous disease of the vulva or neighborhood can be relieved, and generally cured, by the assiduous and persevering application of a solution of biborate of soda (five to ten grains to the ounce of water,) infusion of tobacco, either alone or containing a small quantity of borax dissolved in it, or an ointment of iodide of lead (one drachm to the ounce,) or an ointment of bismuth and morphi. Cloroform also applied locally, in the form of vapor, liniment, or ointment, forms one of the most certain means which you

can use. The simplest way of employing it is, by adding a drachm of clorofarm to an ounce of any common or sedative ointment or linament. You will find great advantage in the management of the disease, in alternating some of these local applications with each other, for most of them begin to lose their good effects when persevered in above a few days consecutively. In the more obstinate and severe cases, strong astringents are sometimes of the greatest use, employed either alone or with the sedatives, as a very strong solution or ointment of alum or aluminated iron or tannin; or the powder of these substances mixed up with some powdered morphia, and applied continuously, for a few days, to the irritated part. Several times, in very obstinate cases, and where the disease was limited to a portion or circle of the cutaneous tissues, I have temporarily separated the affected portion of skin by a free subcutaneous incision, with a tenotomy knife. Of course, it leaves no wound, except by the entrance of the knife itself. I have found this operntion perfectly and entirely successful in some cases, and only of temporary benefit in others.

Perhaps it is unnecessary to add that the general health of the patient must be fully attended to, and that sometimes arsenic, aqua potassæ, and other alternative medicines of that description, are required.—*Medical Times and Gazette*, April 16, 1859.

☞ The Iowa State Medical Society will hold its next Annual Meeting in the City of Dubuque, on the second Wednesday of May next. All Physicians and Surgeons in good standing, residing within the State, who are authorized to practice Medicine and Surgery by any Medical College qualified to grant Diplomas, and acknowledged by the American Medical Association as such, are eligible to be elected as Members of the State Society.

All members of the profession in the State who come within the above requirements, are invited to meet and become connected with the Association in conformity with its code of Regulations.

A. PHILLIPS,
Sec'y Iowa State Med. Society.

Dubuque, March, 30, 1860.

ANNOUNCEMENT OF

Rush Medical College.

THE EIGHTEENTH ANNUAL COURSE OF LECTURES, being the Session of 1860-1861, will commence on Monday, the 5th of November, 1860, and continue sixteen weeks.

It is very desirable that every Student should be present on the first day of the Session, that he may have the instruction in each department in its completeness and natural order, there being but one general introductory, which will be given the first day of the Course.

The Dissecting Rooms are very complete in their arrangement, and the supply of material is such as to furnish the most ample opportunity for the acquisition of Anatomical Knowledge. They will be opened, and Clinical Lectures in the Hospital commenced on the first Tuesday of October, and will be regularly attended from that time to the end of the College Term.

A Preparatory Course, including Demonstrations, will be given at the College, without additional charge.

FEES.

Lecture Fees, (to any one Class,)	$40 00
Dissecting Ticket,	5 00
Hospital Tickets (each $5)	5 00
Matriculation Fee (paid once,)	5 00
Graduation Fee,	20 00

The Lecture Fees must be paid in *advance* by all, except those who have previously attended two full courses, one of which has been in this Institution.

Good board, with rooms, and all the accommodations, can be obtained in this city, from $3,00 to $3,50 per week.

The Alumni of this Institution, and the graduates of other respectable Colleges, will be permitted to attend the whole or any part of the Courses of Lectures, by calling on the Secretary and procuring the Matriculation Ticket.

A good assortment of Medical Books and Surgical Instruments can always be found in this city.

Any further information desired in regard to the College may be obtained by addressing any member of the Faculty.

The means of Clinical teaching are abundant. A Medical and Surgical *Clinique* will be held weekly at the College, Students will have access to the Marine Hospital, and regular instruction will be given for nine months of the year in the City Hospital.

FACULTY.

DANIEL BRAINARD, M. D.,
Professor of Surgery and Clinical Surgery.

JAMES V. Z. BLANEY, M. D.,
Professor of Chemistry and Pharmacy.

J. ADAMS ALLEN, M. D.,
Professor of Principles and Practice of Medicine.

J. W. FREER, M. D.,
Professor of Surgical and Microscopic Anatomy.

DE LASKIE MILLER, M. D.,
Professor of Obstetrics and Diseases of Women and Children.

A. S. HUDSON, M. D.,
Professor of Physiology, Pathology and Clinical Medicine.

W. E. HERRICK, M. D.,
Emeritus Professor of Physiology and Pathology.

EPHRAIM INGALS, M. D.,
Professor of Materia Medica, and Medical Jurisprudence.

R. L. REA, M. D.,
Professor of Anatomy.

EDWIN POWELL, M. D.,
Demonstrator of Anatomy.

CHARLES KEIL, Janitor.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. June, 1860. NO. 6.

Original Communications.

ARTICLE 1.

FRACTURE OF THE CARPAL EXTREMITY OF THE ULNA,

With Displacement of the Pisiform Bone, and Extirpation of the latter six months after the injury.

BY JAS. H. FARIS, M. D., DANVILLE, ILL.

May 2d, 1859, I was consulted by Mrs. Susan Palmer, relative to the above described injury, received the day before. By manipulation, I discovered an oblique fracture of the ulna immediately above its capitulum. The swelling was not excessive, crepitus evident, deformity quite apparent; patient complains of but little pain. She informed me that after raising a window she turned to leave it, and, while in the act of doing so, observed the sash falling; attempting to arrest it, she received the injury by the horizontal mullion coming in violent contact with the ulnar half of the wrist joint. The fragment was easily returned to its proper place by grasping it between the thumb and index finger of the left hand, and rotating hand from left to right. A splint extending from the elbow to the points of the fingers, placed on the back of the fore arm; one somewhat shorter applied in front,

with the addition of a pad in the palm of the hand; a third along the inner side of the wrist joint; the application of a roller encircling the arm,with orders to keep the joint wet with cold water, constituted the dressing. In a few hours the patient complained of rapid darting pain in the course of the ulnar and median nerve, in the axilla, and side of the neck, as high as the origin of the brachial plexus.

The appliances were now removed without any relief whatever. The part was thoroughly examined, the fragments separated and again replaced; when the hand was flexed forward, she was free from pain; when backwards, the pain was excessive. I could not discover that a portion of the nerve had been caught by the fragments; there was no unusual depression or prominence by which I could be guided in my diagnosis, no external wound, not even an abrasion of the skin, indicated that a foreign body from without was producing the mischief. Was there laceration of the nerve? This could not occur, its anitomical relations to the superficial and deep seated tendons of the flexors forbiding such a conclusion.

I continued my attentions to this lady up to the 25th inst., during which period she suffered the most excruciating pain, with scarcely a moment of rest. Morphine in larger doses, liniments, volatile and sedative, variously combined, turpentine with ammonia, the latter with chloroform, tincture of aconite and belladonna, frigorific mixtures of salt and ice, spirits of wine added to diacetate of lead, and acetic acid, and finally a blister from the wrist to the middle of the neck; *none of which alleviated or aggravated the pain.*

June 15th, the constitution was sympathising to an alarming extent, and loss of rest and appetite, morosity of temper, the sides of the little finger and the ulnar side of the ring finger were almost useless; shrivelled, cold, and almost insensible to the prick of a pin; atrophy of the whole arm making its appearance; the circulation in the radial artery not affected, the ulnar could not be found.

Same treatment continued without amendment, until the 20th of June; Drs. Tithian, Scott, and Lemon met me in

council; a number of prescriptions suggested, as many theories advanced, but no good resulting.

21st. During my manipulations I was satisfied that the pisiform bone was displaced and now resting upon the neck* of the front surface of the ulnar, thereby producing the irritation. A pit at the normal location of the bone, satisfied my mind, fully, that my diagnosis was correct, and my patient's suffering at about an end. In the evening the physicians were re-called, my convictions stated, and an explanatory incision proposed on the spot; and in the event the bone was not displaced, to remove an inch and a half of the ulnar nerve. Nothing was done, and I left the patient to be tortured by a repetition of extreme pain.

July 1st, I proposed taking her to Chicago, which I did. A course was prescribed, and upon my return home (July 7th) I pushed it with unremitting energy, until August 12th; aiding it with such adjuvants as I deemed necessary. At this time it was laid aside and a letter of inquiry directed to Prof. Daniel Brainard, of Chicago, who, in his reply, advised me to be influenced by sound judgment, and remove it "if I was sure it was misplaced." Again the physicians were convened, doubts of the propriety of an operation fully discussed, and fears of a suit for malpractice canvassed.

No course worthy of record was adopted from the 15th of August, until the 24th of October. During this long interval the patient was reduced to an alarming extent; each day telling the story of increasing constitutional debility, prominent nervous irritabiilty, and their usual attendants.

At 4 o'clock, P. M., October 24th., I performed the operation, (assisted by the physicians already mentioned) in the following manner:

The patient was seated in an arm chair with a high back, the right arm and hand were lashed fast to the corresponding arm of the chair, and a handkerchief saturated with chloro-

*By the neck, (for convenience of description) I mean that portion of the carpal extremity of the ulna immediately above its capitulum.—WILSON.

form held within an inch of the nostrils; unfortunately, at each inspiration, spasm of the glottis prevented its inhalation and it was laid aside. I now gave her ¼ of a grain of sulph. morph.; and half an hour after, stationed one Dr. in front, another, with a heavy towel passed around the chest including the left arm, a third secured the head, and a fourth placing himself on left side of the patient, he grasped with his left hand the right of the patient and arm of chair to which it was bound, and with the right laid hold of the arm below the elbow.

Seating myself on the right side of patient, I inserted my knife at a point two inches above the wrist joint, and a fourth of an inch to the ulnar side of the tendon of flexor carpi ulnaris, and carrying it towards the radius and down to the wrist joint in a semilunar direction; I terminated it on the ulnar side of the same tendon, above the original position of the pisiform. The flaps formed were turned inwards, the fascia and subcutaneous tissue removed and the bone found full three-fourths of an inch out of its natural position, resting within and above the styloid process and firmly adhering to the surrounding structures. Inserting a small blade flatwise, beneath the tendon from the radial side, I cut all the adhesions in that direction; reversing the knife, I passed it (flatwise) from within outwards and downwards, destroying the connecting tissue between the inner fasciculi of the flexor sublimis and bone. The tendons were separated by blunt hooks, and by a careful dissection the relation of the artery and nerve to the bone were made apparent; the artery passing along the radial side of the bone, presented a well marked crescent, evidently having been turned out of its course by the pressure of the bone; the articular facet of the bone was downwards, and the nerve passing between its centre and the portion of ulnar above described. Taking hold of it with a pair of strong forceps, I hoped to be able to evulse it, but being carious, it was crushed, and I was obliged to remove it in several pieces, which was done without losing half an ounce of blood, or doing injury to the vessel or nerve.

The hooks being removed, the tendons restored themselves to their natural position; the flaps were adjusted, a few strips of adhesive plaster applied, and the whole covered with roller and compress.

The operation occupied a period of twenty-two minutes. The patient was removed to a couch, where she sank into a quiet sleep, continuing nine hours.

October 25th—Patient cheerful, suffers some little from stiffness of shoulder joint, and a sense of tingling at the site of incision.

From this time onward she continued to improve locally and constitutionally. The incision healed by the first intention, and by the seventh day was completely cicatrized and firm. The pain along the nervous track became less and less daily, and has at this time, (April 27th, 1860,) entirely ceased.

Motion at the shoulder joint is not as perfect as it was prior to the injury; doubtless depending upon the position in which she carried her arm for six months. Motion at the elbow is good; at the wrist flexion and extension, normal.—The ulnar half of the hand is somewhat atrophied, the little and ring finger a little stiff, physical appearance otherwise healthy. To use the patient's own language, she "cannot bear to have pins stuck in her hand or fingers, and can carry as much wood and water with it as with the right."

The treatment after the operation, consisted in the application of cold water, (continuously) a few doses of mophine, and an occasional dose of pill cath. compo., to correct the secretions until the wound closed; after which, primarily, stimulating liniments; secondarily, dry, with flannel first, and after with the hand, then the flesh brush. The remainder of the time she has been using an electro-magnetic battery, with, I think, the happy effect of arousing the muscles to action through the medium of the nervous system.

It is worthy of remark, that on the fifth day after the removal of this bone, the recuperative energies of the system were busily engaged. Constitutionally, the pulse became less

frequent, the secretions active, tongue clean, and freedom from nervous restlessness and jactitation. Mentally she emerged from her taciturn irritability, to a pleasant and agreeable loquacity; receiving her friends kindly, and making various explanations in regard to her comparative good health.

ARTICLE 2.

ON THE SULPHATE OF QUININE.

READ BEFORE THE CHICAGO ACADEMY OF MEDICAL SCIENCES, APRIL 7TH, 1860,

BY THE PRESIDENT, DR. R. C. HAMILL.

In a paper which I read before this society, at its February meeting, I advanced the opinion that we were indebted to the action of the sulphate of quinine for a certain febrile condition, that puts on many of the phenomena of typhoid fever; and which, not unfrequently, has been styled and treated as typhoid, especially by that class of doctors who let no opportunity slip to give undue gravity and consequence to all forms of disease that fall under their care.

I gave as my belief, that this irritative form of fever was brought about by the exhibition of quinine at stages of disease when the system was not prepared for its healthful action; viz., that the secretory system of the alimentary canal was acting imperfectly—the amount secreted small and vicious—that the alkaline properties of those secretions which furnish solvents for uric acid and urea were deficient—and that by administering a drug which arrested the elimination of uric acid by the kidney, (which effect, according to Dr. Ranke, is produced by the sulphate of quinine,) we contravene a sanative law of the organism, and throw the burthen from the kidney upon the stomach and bowels, giving rise to copious, very fluid, brown, intestinal evacuations, dry tongue,

stupor, delirium, &c.—and that material, not appropriated for the repair of tissue, was retained in the sysiem.

It will readily be admitted that there is an improper as well as a proper time for the exhibition of every drug or medicinal agent, that has any power or curative virtue entitling it to a place in the materia medica; and the application of this principle obtains in relation to quinine as effectually as it does to any other drug that exalts or depresses vital action.

A small dose of opium, given in the morning, may develop phrenitis; if delayed until noon, may produce the most delightful and refreshing quiet—and if deferred until night, may cause a profound stupor from which the patient will never awake. Quinine is not a remedy of such immediate consequences, but it is an agent of acknowledged potency, or it would never have found its advocates in the treatment of almost every disease that preys on human organism.

I stated in that paper, that in my observation, good results had not followed its exhibition where the tongue was dry, and cutaneous elimination was arrested. And I do not remember of witnessing untoward effects where the tongue and cutaneous surface were moist. Every physician who has practiced medicine in a malarious district of country, knows that in the apyrexia of intermittant fever he can administer 15 or 20 grs. of quinine with almost a certainty of arresting the disease, and that in periodic disease of almost every kind he can rely upon it with the greatest confidence.

During the intermission of the paroxysm of fever, the skin is bathed in perspiration and the tongue is moist; if you increase the peristaltic action of the bowels, you have an easy victory. In the periodic forms of neuralgia, the success is equally sure if the tongue and skin are in that state which gives evidence of secretion and elimination. It undoubtedly has, so far as disease is periodical, a restorative power, and when given six or eight hours in advance of the paroxysm, accomplishes its mission. But suppose the certain knowledge we have, be disregarded, and the quinine be given a half hour or hour before the expected chill or fever, and what

is the effect? Certainly not an arrest of the paroxysm, but a more violent attack of the fever. The exaltation produced by the quinine is superadded, and in all probability the patient will exhibit the frenzy of brain disease—he will, unquestionably, complain of a most intolerable, bursting head ache, and if you have an intermission, it will be after a prolonged exacerbation. A continuation of the medicine will arrest the next paroxysm, but you will find that recovery is not perfect, that the organism does not rally to its normal state with its usual elasticity. It will be found, occasionally, under such circumstances, that the fever does not subside, but assumes a low and continued type, such as I have before alluded to.

I give my own experience and observation, and I think a careful observer will find facts enough to lead him to the same conclusions, in any malarial district of country. I would not choose him for a careful observer, who has settled down upon the theory, that quinine is anti-malarious, and therefore applicable to all cases of malarial origin. I believe that the great cardinal virtue of quinine is its anti-periodic property, which is its known power. I believe that it is a stimulant of its own kind, and that any tonic property which may be attributed to it, is the result of a stimulant to the nerves and absorbents of the stomach, thereby aiding the powers of assimilation and nutrition.

A supposed action upon the liver has grown out of the fact, that hepatic derangement so very generally accompanies the fevers of malarial districts, and to which derangements intermittents formerly were attributed.

There is scarcely a functional obliquity that has not in the hand of some one found a remedy in this drug, which fact is positive proof of the wide spread ignorance of its properties, as well as of the resorts to which some doctors are driven when they really do not know what to do, yet feel that something must be done, or they will suffer either in reputation, or in the loss of practice. What a great amount of physic could be saved, and probably lives too, if the physician was obliged to furnish an intelligent reason for every dose he prescribes.

Some of the advocates of a quinine treatment of fever, claim that it enters the circulation, and by supplying a deficiency in the blood, arrests the degradation of the tissue and thus breaks up a fever. The examination of this view leads entirely into the fields of speculation. Inviting though it be, I will not enter it farther than simply to notice one or two of the reasons for the hypothesis.

The main argument to sustain this view, is based upon a fancied resemblance between quinine and one of the ingredients of healthy blood, which is styled *Taurine*, and furnished by the liver. The similarity of the two substances is founded upon the resemblance which they bear to each other in the following particulars. That is, both are tonic and crystalizable, so far identical; each contains carbon, hydrogen, oxygen and nitrogen, but in very diverse proportions; and taurine has two parts of sulphur which quinine has not.

Taurine, C 4, H 7, O 1, N 1 and S 2.
Quinia, C 20, H 12, O 2, N 2.
Uric acid, C 10, H 4, O 6, N 4.
Urea, C 2, O 2, N 2, H 4.

I deny the tonic property of quinine, as taken for granted by Dr. Headland and those who adopt his views, and find no argument in the discussion of this point which would not apply with as great, if not greater force, to its exclusion, upon the principle that it has so many points of resemblance to urea and uric acid, which are poisons, and their retention in the blood is the cause of irritative fever. Quinine, urea, and uric acid, all have the same four elementary constituents, and in proportions relatively much nearer than quinine and taurine, and are equally soluble and crystalizable—moreover, taurine has never been discovered in the blood.

Upon the supposition, that that view is correct, viz., that it enters the blood and is accepted as a substitute for the supposed missing ingredient in intermittent fever, I cannot divine what justification or authority any one can deduce for the indiscriminate use of the drug in the medication of fevers of malarious origin.

You have increased degradation of tissue, with exalted ac-

tion in remittent fever, and you administer a medicinal agent that you call a stimulant, tonic and sedative. Its first action is stimulant. Now I should look for its effects as a stimulus first, and should expect to acquire moral power over an enraged mob of combatants in the heat of a melee by administering stimulants to them—to soothe and quiet their unbridled passions by liberal potations of brandy, as readily as I could expect to overrule a fever by the exhibition of a stimulant tonic during the exacerbation. The heat and passion of the mob may be overruled by partaking of the stimulus until the powers of life are debauched into beastly intoxication, and by some such analogous action a fever may be conquered, but I leave it for those, to accept and bear the consequences of such medication, who adopt the practice.

The undue proportion of super annuated constitutions, suffering from dropsical effusion, from rheumatism, from paralysis, enlarged spleens and indurated livers, as well as the greater prevalence of low types of fever, suggest the question whether they are all chargable to the direct influence of that subtle, unknown poison which we are taught to call malaria. I yield to no one in my admiration of the sulphate of quinine in the treatment of disease where it has a known virtue; but I must be convinced that the system is in that state of preparation which admits of the development of its legitimate power, before I am willing to exhibit it even in a case of ague. It is an established maxim that that which is powerful for good when rightly directed, is equally effective for evil, when pointed in the wrong direction. This principle has a peculiar fitness in its application, to the effect of drugs upon the human organism; and the opinion, that if it does no good, it can do no harm, is not to be entertained in relation to quinine any more than to morphine, strychnine, or arsenic. Its immediate injurious constitutional effects may not be cognizable in the present state of our medical knowledge, but when, in the course of time, science shall unveil its properties and powers, a more circumspect use of it will be inaugurated.

But to return to the position that it enters the circulation, and exhibits its power there. Give a patient, in fever, twenty or

forty grains of quinine. It is admitted into the circulation and carried through all its ramifications, accompanying, perhaps impregnating the elements of tissue until they are degraded into effete material and seek an exit from the organism. Where is it to go? The portals of the skin are all closed, the kidneys and the alimentary canal are the only other resorts. We find that after the quinine has been taken, that one of the solids of the urine has diminished very materially, which ought to be a matter of congratulation, as giving evidence that the destructive process is less active, there is no waste passing off by the skin, and if there is no increase by the bowels we will be at a loss to know what is the reason—the fever is still as persistent and the destructive tendencies equally imminent—where is the disintegrated tissue? Suppose that the process of degradation or the metamorphosis of tissue has not reached the condition that will admit of its exit through the kidneys, consequent to the action of the quinine. But it may, by the time it reaches the stomach and bowels, be in a state that will permit of its escape in that direction, and thus we have the brown, copious, watery evacuations. Again, it may not find egress from any point and be retained in the system. I know that analysis has not detected these partly degraded elements of tissue in the blood, yet there are arguments which render such a conclusion altogether reasonable. For instance, elimination in fever is, in a large proportion of cases, not correspondent to the amount of food and fluids taken into the stomach. I have frequenly been asked by inquisitive old ladies, "what becomes of all the water the patient, whose tongue is parched with a burning fever, drinks?"

Upon what other hypothesis can we account for the large critical discharges that accompany the sudden lowering of temperature and recession of fever, sometimes by the bowels, but more frequently by the skin and kidneys. And, again, the secondary forms of disease that follow the exanthemata, and other forms of fever, appear to favor of a retained pernicious material in the blood which seeks this method of expressing itself.

ARTICLE 3.

REPORT OF A CASE OF SPINAL IRRITATION.

BY C. D. HENTON, M. D., OF MYERSVILLE.

Was called, May 25th, 1856, to see Miss E. W.

Found a young lady, aged 18, of a pale, bloodless appearance, in bed, surrounded by the friends and neighbors, from whom I received the following history:

That she had been confined to her bed for four weeks, that during all this time she had had "*Spells*," which, within the last 48 hours, had been increasing both in severity and duration. During this time she had been attended by an irregular, whose diagnosis was, "inactivity of the secreting and excreting organs, and spasmodic affection of diaphram."—All I could learn of the previous treatment was, that a great variety of remedies had been used, and among them, that "Sampson of the drug store," calomel—which I readily believed, as she was now decidedly ptyalized. I also learned that her catamenia had first appeared about one year since, but had been very irregular, both as to time and quantity.

A paroxysm soon came on, which was characterised by violent muscular disturbance, the ordinary expression of countenance was lost and replaced by a vacant stare; at short intervals she threw her limbs about convulsively, beat her breast, tore her hair, and frequently urrered short, inarticulate sounds, which might not inaptly be compared to the baying of a small dog.

A careful examination of the case, both during the fit and also during the interval, the absence of emaciation, and there being throughout the paroxysm, the "appearnce as of a concealed will," also being great tenderness upon pressure over spinous processes of last cervical and upper three dorsal vertebra, forced the conviction upon me that it was only a form of that protean malady, hysteria, dependent on spinal irritation. I therefore directed my remedial agents accordingly, and, suffice to say, that under the use of opium,

quinine, iron, valerian, &c. internally, and the "unguentum antimonii," externally, over tender vertebra, I had the satisfaction of seeing my patient *rapidly* and permanently recover; and now, nearly four years since, is in possesion of perfect health.

ARTICLE 4.

ESSAY

On the Pathology and Treatment of Erectile Tumors.

BY DANIEL BRAINARD, M. D., SURGEON OF THE U. S. MARINE HOSPITAL, CHICAGO, ETC.

The term, erectile tumor, is employed to designate that form of disease known under various names of *aneurism by anastomosis*, *nævus maternus*, or marks, *telangeictasis*, etc.—The term, although liable to objections, is not more so than any other, hence its general adoption.

This disease, notwithstanding its frequency, seems to have been confounded by surgeons with fungus and cancerous diseases, until the latter part of the eighteenth century, when it was noticed by J. L. Petit,* under the name of varix; and by John Bell,† to whom we are indebted for the name of aneurism by anastomosis.

Tumors of this kind have been divided according to their situation, into cutaneuos and subcutaneous; according to their characters, into arterial, (*aneurism by anastomosis*) venous, (mostly subcutaneous,) and capillary, nævus, (marks) and such as are mixed, partaking of the arterial and venous characters, or occupying a superficial and deep situation at the same time. Some of the French writers have given the name of *fungus hæmatodes* to this tumor, and seem to have

*Traite des Maladies Chirurgicales, Vol. 1, p. 232.
†Principles of Surgery. p. 102.

attached the idea of malignancy or liability to degeneration to it. No well authenticated instance of such degeneration has, perhaps been adduced, and the term, fungus, in never applied to it at the present day. There are, however, points where the two diseases, erectile and cancerous, seem to touch each other.

A child, eighteen months old, was brought to me from Wisconsin, in 1849, with a mark of a dark blue color extending over the upper part of the right thigh, hip, side of the trunk to the axilla, and before and behind to the median line. Upon the side of the abdomen rose a tumor of the size of a man's fist. I removed it and found it composed of perfectly formed cerebriform matter throughout. The disease re-appeared in a few weeks, and the child died of it soon after.

The color florid, blue, and of various intermediate and intermingled shades, the great diminution or entire disappearance under pressure, the pulsations and vibratory thrill in the arterial variety, are of themselves sufficient to diagnosticate this disease There are cases,however, such as those reported by Mr. Liston* and Mr. Birkett,† where a fibrous element or the presence of adipose tissue may render a diagnosis difficult or impossible, without resort to the exploring trocar. These tumors, when superficial or venous, are most frequently congenital, often numerous on the same subject, and given to occurring in certain familes.

The pulsating tumor originates at any age, and most frequently from violence.

The structure of these growths has been the subject of very careful investigations. Nelaton, A. Berard, Liston, Birkett, Wardrop, Paget, Rokitansky, Haike, and many others, have published accounts of their dissections. I have myself, examined a large number after extirpation. They have, in some cases, a striking resemblance to tissue of the corpus spongiosum urethræ. A probe penetrates the tissue, and

*Med. Chir. Trans. vol. 26, p. 125.

†Ibid, vol. 30, p. 193.

water injected passes through it in every direction. Mr. Paget describes the subcutaneous variety perfectly, as follows: "The common structure of this form of tumor, is a collection of minute blood vessels, dilated and closely arranged within a limited area of some natural texture."* There are, however, peculiarities in the structure of all the growths, which separate them from varix, and from simple enlargement of the capillary vessels. This is demonstrated by the tendency which they have in some cases to disappear, in others to remain stationary, in others still, to increase with rapidity. If, on the one hand, the microscopic characters of a tissue are useful in determining its "pathological physiology," on the other, its history is far more important in determining its intimate structure. Guided by the well known nature and tendency of such growth, we are not only authorized to retain them as a distinct class, but to establish them among subdivisions and distinctions broader and more marked than those commonly recognized.

The latest and best pathological researches seem to accord entirely with this view. Rokitansky, in his treatise on pathological anatomy, and more recently, in an essay presented to the Academy of Sciences of Vienna, has described these growths under the name of "cavernous structure," and as "products of new formation." "The stroma of erectile tumors," he says, "is formed by a network of fibres analogous to those of cellular tissue, the thickness of the septa being very variable. From the thicker septa there radiate others more delicate which incompletely circumscribe irregular spaces which communicate with each other."†

Birkett, in his description, says they must be classed with the fibrous tissues nourished by arteries and possessing cells which are in communication with the larger or smaller veins.‡ This account agrees entirely with that given by Haike, of the structure of the tumor of the breast treated by Mr. Image.

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*Surgical Pathology. p. 481.
†Am. Journal of Med. Sciences for 1855. p. 231.
‡Loc. Cit.

Of the superficial variety, there are a great number whose tendency is to disappear soon after birth. Nothing is more common than to meet in new born infants, marks about the face and neck especially, which not only disappear, but which, to the careful observer, bear marks of being at birth in the course of diminution. They yield to the mildest treatment.

The subcutaneous venous tumor has little tendency to change; it grows or diminishes in size but slowly, and is cured with difficulty. Its analogy to varix, hemorrhoids and varicocele, in all of which the obliteration of a vein is extremely difficult, is apparent.

The arterial variety has a tendency to increase rapidly, pulsates, has the creeping thrill, called by the French, *susurus*, and seems to attract blood to all the neighboring parts, rendering the veins and arteries turgid, injecting the capillaries. The case of Mr. Wells, hereinafter reported, and a case related by Dr. Warren,* are illustrations of this tendency. The analogy offered by such tumors to aneurismal varix cannot be overlooked. They are frequently not congenital, occur as the effect of wounds, and are more subject to treatment than the venous tumors.

Treatment.—If, as has been asserted, the number and variety of remedies proposed indicate the difficulty of cure, there is no disease more obstinate than the one under consideration. The following may be considered as the principal, arranged in the order of their usefulness: 1, excision; 2, strangulation; 3, compression; 4, cauterization; 5, setons or needles and injections; 6, ligation of the principal artery leading to tumor. To these may be added several others, of doubtful utility, as the application of astringents, incisions, subcutaneous laceration, vaccination, irritating injections, galvano puncture, etc.

If the multiplicity of means is somewhat puzzling when thus enumerated, this is not the case when they are considered in individual cases.

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*Warren on Tumors.

EXTIRPATION.

Extirpation is to be preferred whenever the tumor of sufficient size to require an operation, is so situated as to allow of this being completely or in a great measure effected without leaving behind too great deformity, and when it can be done with safety.

The apprehension of danger from hemorrhage in such operations, is, for the most part, not well founded. It is true that fatal cases have occurred, but they are rare, and no operation is entirely exempt from danger. Mr. Wardrop, in whose hands a child died from hemorrhage after excision, (a case so universally quoted against the operation) tried, in another very similar case the ligature of the carotid, without a more favorable result. The patient died on the thirteenth day.*

The following cases will illustrate my own practice:

Case 1. A child, eighteen months old, was brought to me in April, 1850, with an erectile tumor on the top of the left shoulder, half the size of a hen's egg. It had existed from birth, was of a bright scarlet color, except in some points where there were appearances of cicatrices, was slightly pulsating.

I removed it, cutting in the sound skin, performing the operation rapidly, and fetching the edges of the wound together with stitches. Little blood was lost.

Case 2. A child, three years old, was brought to me Dec., 1856, with an erectile tumor of the size of a hen's egg, situated on the anterior margin of the left axilla. It was of the same character as the preceeding, congenital, and had been transfixed with ligatures, and, I think, needles, without benefit. The erectile tissue in this case passed deeply into the axilla, the pulsation was very perceptible, and the surgeons who had been consulted, were deterred from attempting extirpation.

I transfixed the tumor at its base with fine needles, leaving the ligatures in. I then excised it and had the ligatures tied

*Med. Chir. Transactions. vol. 9, p. 206.

as quickly as possible although all the tissue was not removed. The amount of blood lost was by no means great. The wound healed by granulation, and the cure is perfect.

This case is an illustration of the advantage of removing a part where all the tissue cannot be reached. The following is also in point.

Case 3. A Jewish child was brought to me in the Spring of 1853, with an erectile tumor situated on the top of the forehead and extending into the hairy scalp. As the removal of the whole would have left an unseemly scar, I transfixed it at the base with needles, leaving ligatures behind, removed a part of the mass embraced by the ligatures and tied them firmly over the rest. This tumor was mostly subcutaneous, the ligatures were left in place until suppuration occurred and the cure was perfect.

I have removed these tumors by excision from almost every part of the head, trunk and members, without accident.—There are, however, many situations, in which this operation would be dangerous and in which they cannot safely be removed. Of this kind are erectile tumors of the tongue, those extending into the nasal or buccal passages, deep seated, large sized tumors, situated about the neck, etc.

STRANGULATION.

In many of these instances, ligation, so as to strangulate, is the best treatment.

Case 4. A new born infant was brought to me, with an erectile tumor as large as a small strawberry on the end of its tongue. I transfixed the tongue at the base of the tissue with a needle armed with a double ligature, and tied one thread on each side in such a manner as to embrace the whole. Sloughing occured and a perfect cure was effected.

Case 5. A child 12 years of age was brought to me, with an erectile tumor on the right side of the face, embracing the upper lip from the median line, the cheek, angle of the mouth and a part of the lower lip. The disease was quite too extensive for extirpation. I attacked it with needles, inserting first three horizontally through the upper lip and placing ligatures firmly upon them. The needles were so placed as

to embrace nearly the whole substance of the lip—at the end of six days they had nearly cut through and were removed. After cicatrization had commenced I inserted four needles vertically in the cheek, and placed ligatures on them in the same manner; these were removed the fifth day. A small portion of tissue which remained below the angle of the mouth was embraced in two ligatures, firmly tied. At the end of five weeks from the first operation scarcely a trace of the disease remained. The cicatrix was not unsightly.

Case 6. A child six years old was brought, with a tumor of the venous kind situated at the external angle of the eye, and extending into the orbit and along the upper lid to its centre. It was as large as a hickory nut. Fearing the deformity which removal might leave, I transfixed it with four ligatures as near the base as possible and tied them moderately tight. Considerable inflammation followed and an abscess formed in the tumor. At the end of a week the threads were removed, the inflammation subsided, and the tumor was effaced.

The means of effecting strangulation are as various as the cases we are called upon to treat. Ligatures, single, double, or more numerous, passed through the base of the tumor, and tied—the same passed at a right angle or under the skin, so as to effect subcutaneous strangulation, have recently been tried. Needles may also be used singly, in pairs, or in greater numbers, placed parallel or at a right angle, with each other. Upon these, ligatures may be applied in the form of a figure eight or around the base of the tumor, modified according to the necessity of each case.

Recently, Chassaignac's *Ecraseur Liniere* has been used for strangulating these growths. Mr. Mayor, in his work entitled "ligature en masse," recommends an instrument like a tourniquet. Græfe, as long ago as 1833, invented an instrument for strangulating tumors of all sorts, and the use of ligatures with canulæ in certain cases is a practice well known to the profession.

The first case I find treated by ligature, is in La Motte

Traite conplet de chirurgie, vol. 1, p. 333, 1761. Recently, every one has used the ligature in some form.

I have used also strangulation with advantage in connection with other means, cases of which will be given hereafter.

COMPRESSION.

The cases of erectile tumor, cured by compression, are but few, and it is a means which fails far more often than it succeeds. The cases to which it is adapted are those of small size, situated on the surface of the skull. Such tumors, and many others situated on different portions of the cutaneous surface, have, in some instances, a tendency to disappear spontaneously. Hence it is better not to be in haste about an operation in any case, but take time to observe its tendency in this respect. This counsel, approved by most judicious surgeons, has been especially insisted upon by the very distinguished obstetrician, Moreau, of Paris, and should not be forgotten.

In the mean time we can resort to compression and may gain the credit of effecting a cure which would have occurred spontaneously. The best method of using compression, is, in my view, that which I introduced into practice in 1849, viz., the application of collodion, which, by contraction on drying, effects the object and expels the blood in the simplest manner possible.

Case 7. A child about a year old, had an erectile tumor of a bright red color, but not pulsating, of the size of a large strawberry, situated over the anterior fontanelle. I advised the application of collodion, which was repeated as often as it became loose. Three applications completely removed it. This case is noticed in the report of Prof. R. D. Mussey, made in 1851, and published in the Transactions of the Am. Med. Ass., for that year.

Case 8. A new born infant was brought to me in 1851, with a superficial tumor, situated under the left eye, about one-fourth of ah inch in breadth and extending the length of the lower lid. The collodion, being advised, was applied during sleep. Owing to the extreme mobility of the parts, the pel-

licle formed was easily detached and the pressure less effectual than in cases where the tumor is situated over bone.—However, at the end of a year, scarcely a trace of the tumor or discoloration remained.

These are cases taken at random from my note book, as illustrating the forms of the disease in which I have found this simple method of treatment effectual. I might add many others in which it was of no avail; they were, in general, those of larger size and deeply situated.

Compression has been recommended by Pelletan, Boyer, Abernethy, Dupuytren, and others, yet it has not at the present day the confidence of any surgeon.

Boyer's case, where a mother, by repeatedly pressing on the tumor, situated on the lip of her child, cured it, is unfortunately alone in science, and is to be ranked, perhaps, with those of spontaneous disappearance. It is generally agreed that if compression is to be tried at all it should be in those cases only where the tumor is superficial and situated over a bony surface, and that it should be applied by means of a spring or firm bandage. But even under the most favorable circumstances I should not recommend a resort to it except as related above.

CAUTERIZATION.

This may be affected by the actual cautery, by the potential cautery, and by the various milder forms of caustic.—The actual cautery is probably the most ancient method of destroying vascular growths; indeed it was almost the only means known to the older surgeons. As they seem not to have been distinguished from other tumors, its application to them is not positive, but from the notice of its uses in fungus of the antrum and tumors about the anus, there seems but little doubt thas it was used in vascular tumors.*

Without entering further into the subject it may be sufficient simply to state that as a means of *destroying* the morbid growth, it is, and ought to be, entirely rejected from surgical

*Consult Percy Pyrotechnie Chirurgicale Practique.

practice. As a means of effecting the transformation of vascular tissue by inflammation, according to the suggestion of Lallemand, it still retains a permanent place. Among those who have recently recommended it, we may may mention Dr. Mott, and Dr. Knight, the distinguished professor of surgery in Yale College. Guersent, surgeon of the Children's Hospital, Paris, states that he has used it successfully in about twenty cases. It is greatly to be regretted that the peculiar cases to which it is adapted, and the method of using it, have not been given, as they are points still unsettled, and no one is more capable of throwing light upon the subject than M. Guersent. Velpeau speaks highly of it and calls it the "American method."

The instances in which I have used the cauterizing needles with advantage are such as pulsating erectile tumor of the orbit, (a case of which is given further on,) and those involving the thickness of the lip or of the tongue.

It has appeared to me that whenever the morbid tissue is to be transformed by the effect of inflammation, it should be excited first upon the sound parts. This, no doubt, was the view of Dr. Stevens, who, in using setons, placed them in the sound tissue, beneath the tumor.* I have found that when the hot needles were passed through a certain thickness of sound before entering the diseased tissue, when the needles used were large, and when several punctures were made near together, the effect was decided and beneficial.—On the other hand, the erectile tissue is with difficulty thrown into such a state of inflammation as to modify it. This has been particularly insisted on by Watson, who ascribes it to the slight degree of nervous action going on in such growths and I believe that both their sensibility and nutrition are of low grade. Certain it is, that inserting hot needles in them has little effect except the sound tissue be also touched.

Mackilwain seems to have been the first to resort to this form of cauterization. As an auxiliary, it is a valuable

*Watson on Telangiectasis. American Journal of the Medical Sciences,

method of treatment; alone, I think there are few cases where it will be found sufficient.

Caustics, of various kinds, such as the potassa fusa, the solidified sulphuric acid, the acid nitrate of mercury, have been resorted to for the destruction of vascular growths.—They have, however, no advantage over the knife in most cases. When the surface to be affected is extensive, a feeble caustic is very useful. The application of strong nitric acid is practised with advantage in many cases of nævi. It forms a solid eschar which does not separate for many days. The other means for exciting inflammation are such as inserting needles, pins, setons, injections of various kinds, etc.

Of these, the insertion of metallic needles of any kind, is the least reliable, and ought, perhaps, to be entirely rejected from practice. This arises from the well known fact that metallic bodies may sojourn indefinitely in the living tissues without causing much inconvenience. Berard,* in his well known and valuable essay on this subject, states that he had often seen needles come out quite dry after having remained several weeks in such tumors. Those who may be disposed still to think favorably of acupuncture or other needles, I would refer to the essay of Berard, whose observations seem to me conclusive against them.

Setons are scarcely more reliable than needles. If a thread is simply passed through, it produces little effect and the solidification is not permanent.

If the lighter forms of caustic are introduced upon the thread, as nitrate of silver, the action is more prompt but not more effectual. The use of caustic potash or mineral acids on the threads is dangerous, as these substances pass directly into the circulation. The same objection applies to the injection of caustics into the openings left by the threads of the seton, as has been sufficiently shown by Berard.

These objections do not apply to either the pins or ligatures, when they are so used as to effect very perfect stran-

*Gazette Medicale for 1841.

gulation of the tumor. In illustration of this part of the subject, the following case will suffice:

Case 9. Miss A , aged 18 years, applied to me, Aug., 1856, with an erectile tumor, of the venous cubcutanous kind situated under the left eye.

I commenced the treatment by transfixing it at its base horizontally, with four needles, upon which ligatures were placed with moderate tightness. At the end of seven days these were nearly cut through and the tissue between the skin and needle divided; they were therefore withdrawn.—The tumor became inflamed, with several little abscesses in its substance. There was only a small part upon the surface of the lower eye lid which was still elastic. This was transfixed horizontally with a needle armed with a ligature which was tied moderately tight. This, at the end of eight days, had nearly divided the tissues which it embraced, and was removed. Collodion was then directed to be applied over the whole surface, and renewed as often as it separated, and the patient returned home. The tumor, at that time, seemed very firm and I entertained little doubt that a perfect cure would be effected.

At the end of three months the patient returned, with the tumor very nearly in the same state as before the operation. The marks of the former operation were readily perceptible. I then advised excision of a part of the tumor, but she objected to the use of the knife, and I transfixed it at the base with three setons, placed transverely. They were of silk, and previously dipped in a solution of nitrate of silver.—one drachm to the ounce of distilled water. These were not tied but left in, and allowed to remain four weeks, at the end of which time they were nearly ulcerated out, and were removed. They had, however, produced much less inflammation than the needles alone, and the elasticity of the tissue was scarcely diminished. The patient still objecting to excision, I covered, March 5th, 1857, the whole surface with the caustic composed of nitric acid solidified with saffron. This was allowed to remain about five minutes, until it had cauterized the skin superficially. The cauterized surface was dressed

with simple cerate. This cauterization was too superficial to produce any decided effect, and accordingly, March 11, 1857, I applied the caustic potash to the surface one-half an inch in breadth and over an inch in length, until an eschar was formed. As soon as the surface was penetrated, hemorrhage occurred and the application was stopped.

April 29th.—Eschar separated and cicatrization nearly complete. Tumor much diminished in size, but the elastic tissue persisting. Re-applied the potash upon the same spot so as to cauterize deeply. An eschar formed and was detached—cicatrization was completed, but the tumor was still scarcely affected.

July 5th, 1858—I excised it in part, taking care to preserve all the skin. The tissue seemed entirely like that of the corpus cavernosum.

The combination of the seton and caustic has been proposed. Prof. N. P. Smith, of Baltimore, relates (*Maryland Med. and Sur. Journal*, March, 1853,) a case in which he passed threads, dipped in a solution of caustic potash and dried, through the base of an erectile tumor. The case is not given in detail, and seems to have been still under treatment when the report was made.

For myself, the fear of the toxic effect of introducing caustic potash into the circulation, has made me hesitate before imitating this practice.

M. A. Berard, in the essay already referred to, relates several cases in which, after using the seton, he injected the acid nitrate of mercury, the effects of which, in some cases, were favorable and in others gangrene, and constitutional symptoms of poisoning resulted.

INJECTIONS.

This method of treating erectile tumors is attributed by Watson, to Samuel Cooper, and is said to have been successfully employed by Mr. Lloyd. The injection consisted of from three to six drops of nitric acid dissolved in a drachm of water—it was thrown into the tumor by means of a syringe through a minute puncture near its base. During the operation careful pressure is made in all directions around

the tumor to prevent the fluid from entering the general circulation.

The next case on record, in which this practice was employed, was attended with an instantaneously fatal result.* These cases were published in 1836–37. Bell is said to have used it also with success, and Messrs. Toogood and Ward unsuccessfully.

Velpeau, in the second volume of the second edition of his Operative Surgery, says, "I should not hesitate to inject sub-cutaneous tumors, employing a larger syringe and tincture of iodine in place of the solution of nitric acid. He did not put the suggestion in practice, and seems to have intended the tincture to be drawn off as in the operation for hydrocele.

I put this sguggestion in practice.

Case 10. There were several venous tumors situated on the anterior part of the right thigh. They were elastic, capable of being removed by pressure, and composed of tortuous and convoluted veins. The patient was a man of fifty-four years of age, and his constitution was broken by repeated attacks of disease and a fracture of the right femur, which had never united. Assisted by Prof. Herrick, I threw into one of these tumors two grains of iodine and six grains of iodide of potassium in two drachms of water. The injection was made with Anel's syringe through a small exploring trocar introduced to the center of the tumor.

Almost instantly the patient began to spit and continued discharging saliva freely during three days, complaining all the time of a bitter taste in his mouth. The tumor, after the operation, became more tense, and warmer than natural, and after the fifth day contracted below its former size and was flaccid.

Encouraged by these results, I repeated the injection a second time, one week after the first, with the same results in every respect. This case is noticed by me in the Northwestern *Med. and Sur. Journal*, 1850.

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*Watson, Amer. Jour. Med. Sciences, vol. 24, p. 48.

The declining state of the patient's health was the only cause why the treatment was not persevered in. The solution in this case passed directly into the circulation, producing instantaneous iodine ptyalysm, and was not retained in the tumor as it should have been.

Such was the state of our knowledge on this subject in 1853. There was little to encourage repetitions of the trials of the solutions hitherto tried. Tincture of iodine must, in such cases, be more dangerous than the solution, from the alcohol which it contains, and no one would dare to throw it into the current of the circulation.

It was in January, 1853, that the suggestion of Pravaz, of treating aneurisms by injections of the perchloride of iron, was laid before the Imperial Academy of Medicine, of Paris. This plan, in so far as it related to aneurisms, does not concern us here. It has, however, been applied to erectile tumors, and if it is to be preserved as one of the established operations of surgery, it seems likely to be in its application to these rather than aneurisms. Indeed, the first case treated in this way was obviously an erectile tumor and not an aneurism. The case was reported to the Society of Surgery, of Paris, on the 30th of March, 1853. The operator was Mr. Raoul, and the tumor a supposed aneurism of the infraorbital artery. (See *Gazette des Hopiteaux* for 1853, page 177.)—Ten or twelve drops were at different times injected, and the effect seemed at first favorable, but about the time a cure seemed to have been effected a new tumor of the same description made its appearance.

October 3d, 1854, Mr. Follin read to the Society of Surgery the report of a case of erectile tumor of the face, affecting the gums, lips, cheek, etc. Injections of the perchloride of iron were made into the lip at two different points. The immediate effect was the production of hard knots at each point. In five days the lip was very much swollen; one of these points suppurated, and at the end of a month no trace of either remained. Several injections into the substance of the gums and the veil of the palate where the parts were diseased, re-

sulted in ulceration in three days. (*Gazette des Hopiteaux* for 1854, p. 491.

January 18th, 1854, Mr. Giraldes presented a patient to the Society of Surgery, on whom he had injected a venous tumor on the side of the neck, of the size of a nut. Whether this tumor was erectile or a simple varix, does not appear, but I judge the former, as a simple enlargement of the veins of the neck would scarcely require such active treatment.—An injection of perchloride of iron was made which had the effect, at first, of greatly increasing the size of the tumor, which, however, sixteen days after the operation, was diminished in size. (*Gazette Medicale* for 1854, p. 54.)

The *Medical Times and Gazette*, for August, 1857, says, "during the last two months we have witnessed several trials of the acid solution of the perchloride of iron as an injection for producing the coagulation of the blood in nævus, etc. In more than one instance very severe inflammation of the part has followed its use, and in one, a nævus of the scalp, sloughing and even exfoliation of a portion of bone resulted."—(*Am. Jour. of the Med. Sciences*, for Oct., 1853, p. 510.)

Mr. Foster reported two cases of erectile tumor, treated by injections of the chloride of iron. Both are reported cured.*

Mr. Riberi injected aromatic wine into a tumor of the venous subcutaneous kind, situated on the neck. Careful compression was made round it to prevent the wine from entering into the circulation. A cure was effected without gangrene.—*Am. Jour.*, vol. 38, p. 207.

Tyrell was in the habit of injecting erectile tumors with a solution of alum, using Anel's syringe. After two or three injections they hardened and shrunk away.—South in *Chelius Surgery*, vol. 2, p. 565.

The idea of injecting so energetic a caustic as the concentrated perchloride of iron into the centre of an aneurism or an erectile tumor, is certainly not in accordance with all our preconceived notions of judicious surgical practice. The

*Braithwaite's Retrospect, part 29, p. 206

blood, even if coagulated by it, could only be regarded as a foreign substance.

Experience speedily confirmed what sound theory would have led us to expect, and the practice has fallen into disuse both in erectile tumors and aneurisms.

At the time Pravaz was experimenting with the perchloride of iron, I was pursuing a similar course of investigations concerning the solution of the lactate of the same metal.—On the 14th of December, 1852, twenty days before the first communication of Pravaz's experiments with the perchloride of iron on animals, and long before Mr. Raoul had first tried it on the human subject, I had used the solution of the lactate successfully on a case of "aneurism by anastomosis" of the orbit. I had not thought of effecting the coagulation of the blood in the vessels, but desired to produce adhesive inflammation of the erectile tissue and effusion of inflammatory lymph. Having learned, from the experience of others, that acids were dangerous if passed into the blood; and from my own, that iodine was ineffectual, and perhaps not free from danger, I experimented with a large number of solutions with a view of finding one at once capable of exciting inflammation and innocuous when thrown into the circulation. The solution of the lactate of iron seemed more nearly to possess these properties than any other made use of, and accordingly it was selected in the case referred to.

As this case presents an interest in other particulars, the report of it, as originally published in the *London Lancet*, is inserted here. I need only add that the cure has remained permanent, and that at the present time, June, 1860, Mr. Wells is a healthy man, attending daily to a large business.

Case of Erectile tumor of the orbit, cured by infiltration with the solution of the Lactate of Iron and puncture with hot needles, after the ligature of the carotid artery had failed; with observations on the effect of that solution in obliterating the bloodvessels.

William W——, a farmer, aged thirty-four years, of good constitution, consulted me, August 1st, 1851, on account of a

tumor of the left orbit. The eye was prominent, but could be closed; it rose perceptibly with the pulsation of the arteries, and gave a thrill on being touched. On placing the ear in contact with the tumor, a loud blowing sound was heard, which could be perceived, but less distinctly over the whole head. The veins of the face were prominent; the head was hot, and the arteries of the neck and head pulsated with unnatural force. Severe pain was often felt in the head, attended with nausea and vomiting; pressure on the left carotid instantly stopped the pulsation and sound.

History.—On the 14th of July, 1851, the patient received a severe kick from a horse on the left side of the lower jaw, which fractured it on the right side, and otherwise severely injured him. On recovering from the shock, he first perceived the sound in his head. This circumstance was calculated to mislead the surgeon in the opinion of a traumatic aneurism; but on a careful inquiry I found that the left eye had long differed from the other, principally in being short-sighted. Finding compression could not be borne on account of the great tenderness, I advised the ligature of the left common carotid artery; but the patient's mind being unprepared for so serious an operation, he returned home, with the direction to adhere to a rigid diet, and the application of ice or iced-water. Instead of strictly following this advice, he consulted various practitioners, regular and irregular, using by their direction every kind of application. About the 1st of November following, he returned to me. The disease was greatly aggravated. The globe of the eye was protruded, the lids could not be closed, the conjunctiva was ulcerated, and the thrill could be clearly heard over the whole of the head. His general health had suffered much, and he has had several attacks, which he called billious, and for which he had been purged and kept upon a strict diet for many days. Vomiting had increased the size of the tumor; he had severe pain in his head, and could only get relief from large doses of morphine. From the great heat in the head, he only slept by having cloths dipped in cold water kept constantly on it. He was now anxious to have the operation performed, which

was done on the 11th of November, in the usual manner, the artery being tied about an inch below the division. No unusual symptoms occurred. Immediately after the operation the pulsation and sound in the tumor ceased.

The next day, the 12, he complained of some pain in the right side of the head, and the capillaries of that side became greatly injected from the effort to establish the collateral circulation. A blood-letting of eight ounces, gave great relief. The ligature came away on the fourteenth day. Immediately after the operation compression was attempted upon the tumor; but so acute was the sensibility that nothing more than the weight of a fold of linen could be borne. Bags of pounded ice and salt were applied around it, and evaporating lotions upon it. Under this treatment, which, with a rigid diet, was continued, the tumor diminished in size; still on the third day after tying the artery, a careful examination detected a slight pulsation and sound in the tumor. This continued, the tumor still subsiding. He left me on the 10th of December. His health continued poor, and he was not able to attend to his business for several months. He noticed the sound of the circulation occasionally after the operation, and it gradually became more constant and stronger. He was often seized with what he called a bilious attack, which continued a day and a half, and was attended with severe retching and vomiting; at such times there was a marked increase of the pain and swelling, which thereafter became constant. In October, 1852, the cornea had disappeared, the conjunctiva projected in a fungous shape, and several hemorrhages occurred, from rupture probably of the superficial vessels.

On the 11th of November, 1852, just one year from the first operation, he returned to me. At this time the entire orbit was filled, the lower lid was concealed by the fungous projecting, the eye pressed outwards and downwards, and at the root of the nose and inner part of the superciliary ridge there was an elastic swelling, which had caused the absorption of the bone. It was at that point that the pulsations were strongest, and the trill most distinct. The small vessels of the forehead and side of the nose were greatly enlarged, pul-

sated strongly, and the latter gave the peculiar thrill of the disease very sensibly. His general health was much impaired, and he had been able to come to the city by railroad only with great difficulty.

The question of the proper treatment to be employed in a case of erectile tumor of the orbit, when the ligature of one carotid has failed to effect a cure, is one of some difficulty.—The attention is naturally turned to the other carotid; but even if the ligature of that were likely to succeed, the risk in this case was too great, since it was found that the compression of it for a few seconds rendered him perfectly insensible. None of the means resorted to for the purpose of obliterating this vascular tissue had ever been tried on deeply seated tumors like those of the orbit. On carefully reviewing them all, it was determined to try puncture with hot needles. This was done first on Nov. 13th, 1852; the needle used was the size of a common knitting-needle, sharpened to a triangular point, and set in a handle of bone. After being heated in the flame of an alcohol lamp, it was plunged into the tumor about an inch from the root of the nose, in the course of the superciliary ridge, and carried downwards and backwards to a depth of over three inches; on withdrawing it, some bleeding followed, which was readily stopped by slight pressure.

For two days there was little pain or swelling; but on the third day the inflammation was acute, the swelling extending over the face, and presenting an erysipelatous appearance.—On the fifth day this began to decline, and in a week was nearly gone. While the inflammation was at its height the tumor was more firm and the thrill less distinct, but as it subsided the elasticity and pulsation rapidly returned.

Nov. 25th.—I repeated the opeartion, making the puncture half an inch nearer the nose, and carrying it to a depth of only one inch. The effects corresponded with those before descibed, but were a little less violent. On the third day the sound was diminished, and the firmness of the tumor very sensibly increased. On a careful examination it was found that the morbid tissue extended over the bridge of

the nose and down to the inner canthus of the right eye, where a thrill could be distinctly felt.

Dec. 2d.—A puncture was made on the left side of the nose, the needle being carried obliquely upward and to the left side. The inflammation resulting from this puncture was acute, and a suppuration occurred about it. The thrill upon the right side of the nose quite disappeared.

The effect of these three punctures was to limit the spread of the tissue upon the forehead and nose; but the inflammation, although acute and extensive, was superficial, and the mass of the disease at the center was still unaffected. It was evident that the needles cooled in passing through the tissues, so as not to cauterize much below the surface.

It was therefore determined to change the treatment, and inject a fluid into the centre of the tumor capable of effecting its obliteration. For this purpose a solution of the lactate of iron, of the strength of eight grains to one fluid ounce of distilled water, filtered through paper, was preferred. The reasons for believing in the safety and efficiency of this remedy will be given below.

14th.—I punctured the tumor at its most prominent part with the infiltrating canula, carrying it to the depth of about an inch; on withdrawing the stylet arterial blood followed. A fluid drachm of the above-named solution was immediately thrown in with a small syringe, constructed for the purpose, and the canula withdrawn. The immediate effect was an intense pain in the left temporal region, and a flushing of the face, which latter only lasted a few seconds. A chill followed, accompanied with nausea and vomiting. Reaction took place in an hour, but the vomiting continued, and for twenty-four hours all drinks were ejected; pulse 63.

15th.—Vomiting continues; pain less; upper lid much swollen; pulse 65.

16th.—Vomiting less; no pain; has slept well; pulse 60; swelling increased, and so tender as not to bear the slightest touch.

23d.—For the last six days the vomiting has gradually diminished; the pulse is natural; the tumor is less tender,

firm, and the pulsation perceived only at the external angle; frequent lancinating pain is felt in the orbit.

During the whole of this treatment, both of the punctures and infiltration, the head has been kept enveloped in bladders filled with a freezing mixture of ice and salt, which was very grateful to the patient. He now began to complain of its being too cold. The heat in the head was reduced to the natural standard, and from the time of the infiltration neither thrill nor sound has been perceived. The veins of the face were much diminished in size, and the pulsation of the arteries reduced to its natural state. A slight pulsation was still perceptible at the external angle of the eye, for which a puncture was made at that point with a hot needle, on January 4th, 1853.

Jan. 10.—From the time of the last puncture no pulsation has been perceived, the swelling subsiding. At this time an opening was found to exist on the anterior surface of the globe of the eye, which still remains protruded between the lids. This was followed by severe inflammation of the globe, which lasted several days. The discharge from the opening was at first the humors of the eye, afterwards pus, but no blood.

Feb. 5th.—Swelling gradually subsiding; tumor firm, no pulsation; but little pain. The patient slept, for the first time in more than a year, without some one to keep wet cloths upon the eye, dressed himself, and walked about the house; health good.

March 5th.—Swelling entirely disappeared; the globe of the eye perfectly collapsed; lids closed.

June 6th.—The patient has been pursuing his ordinary occupation for three months. His health appears perfectly restored. The left orbit seems entirely excavated and free from disease.

At this time he was presented at the annual meeting of the Illinois State Medical Society, and examined by a large number of its members, who concurred in the opinion that the cure might be regarded as perfect.

Remarks.—It will be readily understood that so serious an operation as throwing a fluid drachm of a solution of the lactate of iron, at a point almost to saturation, directly into the

current of the circulation, would not be ventured upon without the most satisfactory reasons for regarding it, first, as safe; second, as effectual. I propose now to offer, briefly, some of the reasons for so regarding it.

In 1850 I was engaged in making inquiries concerning the effects of this salt in certain diseased states of the system, and was induced, from certain theoretical views, to try the effect when thrown into the veins. Before doing this upon the human subject, I tried it upon a dog, dissolving, rather imperfectly, ten grains of it in one fluid ounce of distilled water. This was thrown at once into the saphena vein of a middle-sized dog, and the experiment was twice repeated without any ill effect.

In December, 1851, I first used it upon the human subject, using, in the course of eight weeks, nineteen grains of the salt in solution. The largest amount injected at one time was three grains, dissolved in three drachms of distilled water. The number of times it was employed in this subject was nine. It had no ill effects, but the contrary. What is pertinent to our present subject is, that each of the veins into which it was thrown at the bend of the arm, was found, after a certain length of time, to be obliterated and converted into a firm cord, without there being produced either pain or perceptible inflammation. I have since used it in four other cases—in two of them once, and in the other two twice each—without any unfavorable effects. In one of these cases, in which it was used twice, a vein was opened a second time, three days after the first operation, but it was found filled at that point with coagulum, which, of course, was not disturbed, but the injection made by another vein. Its tendency to obliterate the veins by a gradual process of thickening their coats and obstructing the circulation, was thus made sufficiently apparent, while its safety, used with requisite precautions, was clearly demonstrated. As these cases related solely to the veins, before using it in the case of tumor of the orbit, in which it might enter directly in the arterial circulation, it was thought proper to try it upon an artery in a dog. Accordingly three grains of the lactate dissolved in three fluid drachms of

distilled water, were thrown into the carotid artery of a small dog, and the vessel tied. The only effect was a slight irregularity of the action of the heart, which continued but a few seconds. As this entered directly into the cerebral circulation, its safety, when used in a much smaller quantity in the human subject, might legitimately be inferred. The result, as used upon the tumor, fully justified its employment, although the effects produced were somewhat severe. They were greatly less so, and less dangerous, than those resulting from the ligature of the carotid artery; and used in smaller quantity, repeated if necessary, it seems to promise relief without the necessity of resorting to that operation.

I may add here, that I have since used the same solution upon an erectile tumor of a venous character, of the size of a pigeon's egg, upon the inside of the lower lip, by injecting it at three different times, without any other effect than a slight tenderness, followed by gradual diminution of size and induration of tissue; but the cure is not yet complete.

The applicability of this practice to the treatment of varicose veins and aneurisms will readily suggest itself, but further experiments will be required to determine to what extent it can be relied upon in these cases. The number of the *Revue Medico-Chirurgicale de Paris* for May, 1853, contains some interesting experiments by M. Pravaz, M. Giraldes, and M. Debout, on the coagulation of the blood in the arteries of animals by the injection of a solution of the perchloride of iron, and also three cases in which it had been used for the treatment of vascular tumor in the human subject, in each of which suppuration, and in one, gangrene, followed. These results are not of a nature to encourage further trials of that substance; but if we take into consideration that the solution of the perchloride of iron is a substance foreign to the normal constitution of the blood, and produces instant coagulation when brought in contact with it, whereas the solution of the lactate of iron is composed of elements which enter into the composition of the blood; that when thrown into the living vessels it does not coagulate it, but produces a thickening of the coats and a deposition of coagulable lymph from subacute

inflammation; the difference between the two results will be readily understood. It is probable that the solution of the lactate, when thrown into the vessels, immediately undergoes decomposition, the acid combining with the soda of the blood, and the base passing into a higher state of oxydation in which it naturally exists in that fluid. In no case has this solution, when thrown into the blood or into a vascular tumor, shown a tendency to produce suppuration, but a slow inflammation, of an adhesive kind and limited extent. In one case, where it was inadvertantly pressed in small quantity into the subcutaneous cellular tissue, instead of into the vein as intended, a hard swelling having all the appearance of a boil or small carbuncle was the result; but even this effect will not be produced by it, when used in that manner, unless the solution be in a certain degree concentrated.

Encouraged by the result in this case, I did not hesitate, on the first favorable opportunity, to repeat the treatment.

Case 12.—Miss P. aged 21 years, from Rockford, Ill., has had an erectile venous tumor situated on the inner side of the lower lip, near the right commissure, from a very early age. At present it is of the size of a very large nut.

Operation.—Having everted the lip and covered the tumor with a tube of suitable size, applied and exhausted as a cupping glass. I introduced a minute trocar to the center of the tumor, and injected through it a drachm of the solution of the lactate of iron, of the strength of eight grains to the ounce. After retaining the cupping glass in place for about a minute, in order to give the solution an opportunity to act upon the internal membrane of the vessels, it was removed. But slight inflammation followed—a little induration, which speedily passed over. At the end of a week no change was perceptible. This operation was repeated six times in the same manner, the quantity of solution used being greater, and the cupping being retained longer, without effecting a cure. At the end of two months the tumor was about one-half its size at the commencement, having had knobs at some points, and vessels filled with blood at others.

I considered this trial as conclusive against the lactate in this form of the disease.

6. *Ligature of the Principal Arteries Leading to the Tumor.*—Dr. Norris (*American Journal of Medical Sciences*, for July, 1847,) publishes a table in which is embraced twelve cases of ligature of the common carotid artery, for erectile tumor in the orbit. He states the result as follows: cured, 9; recovered, 2; died 1.

While admitting that ligature of the carotid artery has been more successful for tumors in the orbit than that of other arteries, for those situated elsewhere I believe that the result in those cases will be found less favorable than stated by Dr. Norris.

Mr. Wardrop had a fatal case. The tumor was seated on the side of the jaw. There are several cases on record which are said to have resulted in improvement. As these were reported for the most part within a few months after the operation, the improvement is likely to have been but temporary.

Mr. Travers tied the carotid artery for pulsating, thrilling tumor of the orbit. Two years afterwards it gave no trouble.

Boyer relates the case of a congenital pulsating tumor of the color of wine, situated over the left temporal region. Pelletier tied the temporal artery after it had been incised, without success. The patient died on the 14th day. (*Maladies Chirurgicales*, vol. ii, p. 295.)

Dupuytren is said to have tied the carotid artery in a similar case, with "partial success."

Mr. Arendts reported a case of ligature of the carotid artery for erectile tumor of the right temple, the result of a blow on a congenital nævus. The tumor burst during the operation, and eight pounds of blood were lost. The next day twelve small arteries were tied. (*Medical Chir. Transactions*, vol. 22, p. 124.

Mr. Scott, of the London Hospital tied the right carotid artery, for a tumor of the same kind, resulting, from injury. The case is said to have been improved. (*Medical Chir. Transactions*, vol. 22, p. 124.)

Prof. Mussey, in 1827, tied both carotid arteries for an

erectile tumor on the vertex. These operations failing, he extirpated the tumor. (*American Journal of the Medical Sciences*, for Feb. 1830.)

Mr. Wardrop reports two other cases, one of which was successful. (*Walton's Ophthalmic Surgery*, p. 225.)

I have already reported the case of William Wells, in which the ligature of the left carotid artery failed to cure an erectile tumor of the orbit.

Case 13—*Erectile Tissue occupying the palm of the hand—Ligature of the Radial and Ulnar Arteries—Cure.*—Mrs. E. A. G., aged 25 years, applied, February 25, 1856. A painful enlargement of the left hand. It had been gradually coming on for many years, and at this time presented the following appearances. The hand was of double its natural thickness of a florid red color, throbbed and thrilled at each arterial pulsation. All the veins and arteries were much enlarged and pulsated the arteries with much force. The hand was very tender and painful. I tied up the radial and the ulnar arteries at the wrist. They were both much enlarged and very tortuous, and their coats thin, like those of a vein.

On the second day some swelling and diffuse redness, like erysipelas, showed itself, which disappeared under appropriate treatment, and the patient left on the 7th day in the way of cure.

Oct. 1858.—This patient remained cured.

A review of the cases in which arteries have been tied for erectile tumor shows that in the accidental pulsating, thrilling sub-cutaneous variety, the operation is often successful, particularly when the disease is seated in the orbit, while in the tumors congenital variety it has little chance of success.

There are, in addition to the means already noticed, a variety of others of a miscellaneous character, which must not be entirely passed over.

Of these, vaccination is often recommended. It was first resorted to by Mr. Hodgson, of Birmingham, about the year 1828. It has been used by Messrs. Young & Auchincloss, of Glasgow. It may be used in cases of very slight

mark, but even in these I have never seen it of much benefit and in more extensive or deeper seated disease it is altogether trivial and unworthy of trial.

Analagous to this plan, but more effectual, is that of applying the Tart. Ant. and Potass. It has been used by Cumming, fifteen grains mixed with one drachm of galbanum plaster, and applied upon the part affected. Sloughing is said to have followed its application. Mr. Hickman used it mixed with olive oil.

Mr. Calloway used the paste of chloride of zinc. Mr. Helmuth the arsenical paste. Mr. Lafargue, inoculation with croton oil.

I have often tried each of these, and in addition, vesication with the Spanish fly, with the nitrate of silver, creosote, and other vesicants. They all possess the property of diminishing the intensity of the redness in congenital nævus, but are not effectual except in spots of very limited size. Even in these they commonly fail.

Mr. Edwards reports two cases cured by the application of iodine paint. They were small and superficial. (*American Journal* for October, 1855.)

In a severe case, which I shall report further on, the "iodine paint" was used perseveringly and seemed to have the effect of somewhat bleaching the discolored surface, but this was temporary.

Dr. Marshall Hall recommended sub-cutaneous laceration of the diseased tissue. The recommendation is strictly in accordance with physiological views, for it is know that the blood coagulates whenever it comes in contact with a cut surface, while the internal surface of veins, arteries, or cells of erectile tissue possess the property of preserving its fluidity.

It has been carried into practice in one instance, by J. M. Warren, who employed it after using the frigoric mixture. The case was said to be discharged much improved. M. Jules Guerin used it in case of a tumor situated on the side of the nose. Two operations were performed with

success. M. Blandin is said to have used it several times successfully.

Dr. Macke recommends corrosive sublimate four parts, to collodion thirty parts. He says this produces an eschar one or two lines in depth. I have tried it, but from some reason have not found it to produce any perceptible effect.

Cutting, and burning by means of a fine platinum wire, heated by a currant of galvanism is now being used. It is not easy to see what advantage can be derived from it.

Passing over a number of applications not deemed worthy of mention, I shall finish the enumeration of different methods of treating erectile tumors, by a few words on the subject of electricity or electro-puncture. M. Petroquin recommended it as early as 1845, and during the following year used it in several cases of aneurism, and Messrs. Liston and Phillips had, it is said, previously employed it without success.

M. Nelaton has reported a case of pulsating, thrilling tumor, on the bridge of the nose, the result of an injury, cured by six applications of galvanism. Two needles were applied to those points of the tumor where the pulsations were most distinct, and brought into connection with the battery of Bunsen, composed of thirty pairs of plates, which were permitted to act for ten minutes. (*Gazette Medicale* for 1846, p. 736.)

Recently it has been found by experiment, that the best method of proceeding is to use steel needles covered with zinc. These should be thrust into the tumor and connected with the positive pole, after which the negative pole should be connected with a piece of platinum and placed on the skin near the aneurism, the integument having been previously moistened with a saline solution. (*American Journal* for April, 1854, p. 507.)

Neither experience no reasoning on the subject have as yet given a very favorable impression of this treatment in erectile tumors. It must, however, be admitted that as yet it has not been properly tested, and that it is well deserving a further trial.

The surgeon, after taking a survey of all the means which have been enumerated, and considering their relative value

and efficiency, will be induced to confine his choice within a very limited range, and to combine them judiciously, rather than attach himself obstinately to a single plan. I may, perhaps, best illustrate my own practice by a report of cases treated. The following is one of the most formidable which has fallen under my care, and is, in my judgment, one of those in which palliation is all that is to be aimed at.

Case 14.—B. E., aged twenty years, has an erectile tumor occupying the region of the neck and face. The left side of the tongue, the gums of the upper and lower jaws, the whole thickness of the lip and cheek, were very vascular, pulsating but not thrilling. The disease was congenital, but had increased with great rapidity after an injury which he had received some two years previously.

In Jan., 1857, the treatment was commenced by inserting fine steel needles vertically through the lower lip, from its edge to the chin, one at each angle of the mouth, and the others at regular distances between. The needles were placed very near the mucous membrane, and ligatures tied firmly upon them, in form of a figure eight, and then irregularly from one to the other. At the end of five days the tissues thus embraced had been very nearly cut through by the ligatures. They and the needles were therefore removed, cicatrization proceeded, and at the end of three weeks the lip had been greatly reduced in size, and was traversed in different directions by fine bands of cicatrix. As there were still points at which the disease existed in the lower lip, these were punctured at different times by the cauterizing needles, at a white heat, the patient being under the influence of chloroform. The lip having been thus greatly reduced in size, the gums were next attacked.

The patient having been placed under the influence of chloroform, cauterization with the iron at a white heat, was effected on the whole of the diseased gums, in a very thorough manner. While the cicatrization of these was proceeding, I made use of means for diminishing the intense bluish-red color of the surface.

Vesication with blistering collodion, nitrate of silver,

creosote, strong acids, and various other irritants were resorted to. Strong solutions of iodine were also used. The plan pursued was to commence at the edge and even let the vesication extend a little upon the sound skin and about an inch in breadth and three inches in length upon the diseased surface. This was kept up for about two weeks, when, as it was healing, another strip was subjected to a similar process. The patient submitted himself to this treatment with admirable fortitude for six months, at the end of which time the swelling was greatly diminished, particularly that of the lip, which applied itself to the teeth, very perfectly, and the color of the face was in many parts scarcely greater than that in many persons of very florid complexion.

I presume that many surgeons would, in this case, have resorted to ligature of the carotid artery, but aside from its liability to fail of success in any similar case it is an operation of considerable danger and the necessity for it was not sufficiently urgent in my view to justify its performance. The treatment resorted to, although long, was not dangerous, and resulted in an amelioration extremely gratifying and satisfactory.

The relative merits of the different methods of treating erectile tumors, may be summed up as follows:

I. Excision should be performed in every case where the size and situation of the tumor will admit of its being performed. This is almost as much a rule in these cases as in cancer. The exceptions are the slight cases which may be trusted without treatment until they increase in size.

II. When excision would cause too great a loss of substance, danger from hemorrhage, or when, from any cause, excision is objected to, strangulation is to be preferred next in order, and whether effected with ligature alone, or with needles, or other means, it should always, if possible, embrace the whole diseased structure.

III. In limited superficial naevi and erectile tumors, particularly if placed over bony surfaces, compression will often diminish, if not cure, the disease.

IV. In deep-seated tumors, particularly aneurisms by anas-

tomosis, cauterization with the hot needles is an extremely efficient remedy, either by itself or in connection with other means.

V. Setons or metallic needles may be used in the venous forms of the disease. They are more effectual when placed, to some extent, in sound tissue.

VI. Ligature of the principal artery leading to the part, is adapted to the variety called aneurism by anastomosis, the accidental thrilling variety, and particularly to that variety situated in the orbit of the eye. I believe, however, that it is more dangerous and less necessary than is generally supposed.

VII. Vesicants, escharotics and caustics, are adapted to complete a cure, when a small portion of tissue remains after excision, strangulation or seton. They are uncertain and little to be relied on.

VIII. A combination of several of these methods of treatment will often be found advisable.

Note.—Since writing the above, I have received an interesting paper, published in the *Montreal Chronicle*, by John Ridleh, M. D. Dr. Ridleh injected four erectile tumors of different kinds with perchloride of iron, and produced sloughing in all. This, although effectual in each instance, is to be regarded as only a different way of using caustic, the advantages of which require, perhaps, further observations before pronouncing upon.

SECOND ANNUAL REPORT

OF THE

CHICAGO CHARITABLE EYE AND EAR INFIRMARY, FOR THE YEAR ENDING MAY 1, 1860.

Officers of the Association.—President, Walter L. Newberry.

Vice Presidents—Charles V. Dyer, Luther Haven.

Secretary—Samuel Stone.

Treasurer—Edward L. Holmes.

TRUSTEES—Walter L. Newberry, William H. Brown, Chas. V. Dyer, Luther Haven, Ezra B. McCagg, William Barry, Flavel Moseley, Samuel Stone, Philo Carpenter, Rev. N. L. Rice, D. D., John H. Kinzie, Mark Skinner.

BOARD OF SURGEONS, (Trustees ex-officio.)—CONSULTING SURGEONS.—Prof. Daniel Brainard M. D., Prof. Joseph W. Freer, M. D.

ATTENDING SURGEONS.—Edward L. Holmes, M. D., Edwin Powell, M. D.

It must be a matter of interest to our readers to learn that the Infirmary continues in a flourishing condition. During the past year *one hundred and seventy-seven* patients have been under treatment, making an aggregate of *two hundred and ninety-two* patients, since the establishment of the Infirmary, two years since. These patients have all been from the poor and destitute classes of society.

Although but a small portion of the public are yet aware of the existence of the Infirmary, the number of its patients has been constantly increasing.

In a city as large as Chicago, an Infirmary for the poor, afflicted with diseases of the eye, should be maintained at public expense, since it is more in accordance with an enlightened humanity, and it is more politic and economical to furnish the destitute with gratuitous treatment than to support them in our Blind Asylums, after they have lost the power of vision.

For the purpose of preventing, as far as possible, blindness and its attending evils, several States have granted considerable sums of money for the establishment and support of charitable Eye Infirmaries. The annual reports of these institutions, show what incalculable good they may accomplish. Many patients, in our Eastern cities, are wholly indebted to Eye Infirmaries for the preservation of their sight, thus being saved the painful necessity of becoming a burden either to their friends or to the public at large.

There is another reason, and a very important one, why an Institution of this kind should recommend itself to the public, and receive the encouragement of our profession. An Eye

Infirmary, under the charge of competent surgeons, will afford ample opportunities for clinical instruction in diseases of the eye, which are among the most important affections we are called upon to treat. It is universally admitted that this department of medical science has been too much neglected by the physicians of this country. We believe the establishment of good Infirmaries in all our cities, where medical instruction is sought by the student, would tend to awaken a greater interest in this important subject. An Infirmary, in which the student can obtain a thorough knowledge of the theory and practice of ophthalmic medicine, will, indirectly, accomplish more good, perhaps, than it can by the direct benefits conferred upon the patients under treatment. Whatever contributes to the advancement of a knowledge of ophthalmic science among our practitioners, must be the source of inestimable good to the public.

We trust the Infirmary will receive the encouragement and support of the public, and especially of the profession.

The Second Annual Report of the Surgeons of the Infirmary is worthy of a careful perusal, as showing the practical utility of such an institution.

Care of the Sick.—Not to allow a patient to be waked, intentionally or accidentally, is the *sine qua non* of all good nursing. If he is roused out of his first sleep, he is almost certain to have no more sleep. It is a curious, but quite intelligible fact, that if a patient is waked, after a few hours instead of a few minutes sleep, he is much more likely to sleep again. Because pain, like irritability of brain, perpetuates and intensifies itself. If you have gained a respite of either in sleep, you have gained more than the mere respite. Both the probability of recurrence and of the same intensity will be diminished; whereas both will be terribly increased by want of sleep. This is the reason why a patient, waked in the early part of his sleep, loses not only his sleep, but his early power to sleep. A healthy person who allows himself to sleep during the day, will lose his sleep at night; but it is exactly the reverse with the sick generally; the better will they be able to sleep.—Miss Nightingale.

Editorial.

BOOK AND PAMPHLET NOTICES.

Lectures on the Diseases of Infancy and Childhood, by Charles West, M. D., author of "Lectures on the Diseases of Women," &c., &c. Third American edition from the Fourth revised and enlarged London edition. Blanchard & Lea, Philadelphia, 1860. Received through S. C. Griggs & Co., 39 and 41 Lake street.

There are few authors who have added more valuable contributions to medical literature than Dr. West, and the subjects on which he has written are among those of the first importance to the profession. The opinion is not unfrequently met with among the people, that the diseases of infancy and childhood are not capable of being benefited by medical treatment; and even members of the profession are not wanting who avow that such cases should be left to the care of experienced nurses, or trusted to the restorative powers of nature. Than this conclusion none could be more erroneous. The maladies of childhood, when correctly apprehended, are quite as amenable to medical treatment as are those of adult life, and perhaps even more so, on account of the easy susceptibility of the physical organization, at this period of life, to the influences of external circumstances, and for this reason the ravages of disease, if left unimpeded, have, in such cases, the most fatal tendencies. Let this fact be fully appreciated, and then will diseases of childhood come to receive something of the attention that their importance merits. The statistics of the most favored countries show that about one-half of the mortality of the human race occurs prior to the age of five years, and this high ratio of fatality is undoubtedly, to some extent, due to the fact that practitioners fail to recognize the modifications that infancy gives to disease, and to the effects

of therapeutical appliances. We hardly think that Dr. West goes too far, when he says that those who would successfully treat the diseases of childhood "have to study a new semiology, to learn a new pathology, and new therapeutics." The author says "These Lectures embody the results of 900 observations, and 228 post mortem examinations made among nearly 30,000 children, who, during the past twenty years, have come under my care."

The Peninsular and Independent Medical Journal, published at Detroit, Mich., is discontinued at the end of the second volume, for the alleged reason "that it does not pay." That a publication so favorably located, should be obliged to suspend for such a cause, is a fact by no means cheering to others embarked in the enterprise of Medical Journalism.

TENTH ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY.

HELD IN PARIS, ILL., MAY 8TH AND 9TH, 1860.

FIRST DAY—MORNING SESSION.

The Society met in the Elliott Chapel, and was called to order at 10 o'clock, A. M., by Dr. H. W. Davis, one of the Vice-Presidents, the President being absent.

Dr. S. York, Chairman of the Committee of Arrangements, welcomed the members of the Society to the hospitalities of the profession and citizens of Paris, and reported the following delegates and permanent members as present:

Delegates.—J. A. W. Hostetter and Ira B. Curtis, of Decatur, from Macon, Co. Med. Soc.; R. H. Brown, of Mahomet,

and John Swain, of Champaign, from Champaign Co. Med. Soc.; R. G. Laughlin, of Heyworth, T. D. Fisher, of LeRoy, from McLean Co. Med. Soc.; T. K. Edmiston, of Clinton, De Witt Co. Med. Soc.; J. H. Apperson, of Bourbon, Douglas Co. Med. Soc.; D. E. Foote, of Belvidere, Boone Co. Med. Soc.; D. W. Stormont, of Grandview, and L. L. Todd, of Paris, from Esculapian Med. Soc.; W. M. Chambers, of Charleston, Eberleon Med. Soc.; N. S. Davis, of Chicago, Medical Department of Lind University; J. W. Freer, of Chicago, Rush Medical College; E. L. Holmes, of Chicago, Charitable Eye and Ear Infirmary.

Permanent Members.—J. S. Whitmire, of Metamora, Woodford county; G. Beeman, and S. T. Trowbridge, of Decatur, Macon county; J. M Steele, of Grandview, and S. York, and John Tenbrook, of Paris, Edgar county; H. Rice Payne, of Marshall, Clark county; H. W. Davis, of Terre Haute, Ind., formerly of Paris.

The Secretary then read the roll of members, and distributed copies of Transactions containing the minutes of the last annual meeting.

The Society then took a recess of ten minutes to enable the delegates and members from each county represented, to report one of their number to act on a committee for nominating officers and filling standing committees for the ensuing year.

The Society having been called to order, the following were reported as members of the Nominating Committee:

W. M. Chambers, of Coles county; J. S. Whitmire, of Woodford county; T. K. Edmiston, of De Witt county; E. L. Holmes, of Cook county; John Swain, of Champaign county; J. P. Apperson, of Douglas county; R. G. Laughlin, of McLean county; D. E. Foote, of Boone county; Ira B. Curtis, of Macon county; H. Rice Payne, of Clark county; J. M. Steele, of Edgar county.

On motion of Dr. J. W. Freer, the Nominating Committee was requested to defer any action until 3 1-2 o'clock, P. M., as delegates from other counties were expected to arrive in the afternoon trains.

On motion of Dr. W. M. Chambers, the regular order of business was suspended for the purpose of electing permanent members.

L. D. Martin, of Shelbyville, Shelby county, proposed by W. M. Chambers.

Charles Johnson, of York, Clark county, proposed by H. R. Payne.

John H. Clark, of Decatur, Macon county, proposed by Ira B. Curtis.

Ezra A. Steele, of Chicago, Cook county, by N. S. Davis.

J. T. Pearman, of Elbridge, Edgar county, by D. W. Stormont.

A. H. Kimbrough, of Georgetown, Vermillion county, by Wm. M. Chambers.

D. O. McCord, of York, Clark county, by H. R. Payne.

Charles Gorham, of York, Clark county, by H. R. Payne.

On motion of Dr. W. M. Chambers, the above-named gentlemen were unanimously elected permanent members of the Society.

B. F. Swafford, M. D., of New Goshen, Ind., was nominated for a permanent member, when the question was raised whether it was proper to elect permanent members residing out of this State. The question was discussed by Drs. Edmiston, Whitmire, H. W. Davis, and N. S. Davis.

The following resolution was offered by N. S. Davis, and adopted:

Resolved, That the constitution of this Society does not contemplate the election of permanent members residing out of the State. But a permanent member of this Society, elected while residing in this State, does not lose his membership by merely moving out of it.

Dr. D. W. Stormont moved that a committee of three be appointed on unfinished business, which was seconded and adopted. The President appointed D. W. Stormont, T. K. Edmiston, and H. R. Payne, said committee.

Dr. B. F. Swafford, of New Goshen, Ind., and Dr. Hedges, of Clinton, Ind., were unanimously elected members by *invitation*.

On motion of Dr. W. M. Chambers, the delegates appointed at the last annual meeting to attend the meeting of the American Medical Association, were requested to report at 10 o'clock to-morrow morning, whether they can act as such delegates.

On motion, the Society adjourned to 2 o'clock, P. M.

AFTERNOON SESSION.

At 2 o'clock, P. M., the Society was called to order, Dr. S. T. Trowbridge, one of the Vice Presidents, in the chair.

The minutes of the previous session were read and approved.

The following named gentlemen were unanimously elected permanent members, viz:

J. W. Lawrence, M. D., of Carbondale, Jackson Co., proposed by S. York.

John W. Frizell, M. D., of Bloomfield, Edgar Co., by S. York.

J. D. Mitchell, M. D., of Darwin, Clark county, by H. R. Payne.

The following members were then added to the nominating committee:

Dr. L. D. Martin, of Shelby county,—A. H. Kimbrough, of Vermillion county,—John W. Lawrence, of Jackson county, —T. D. Fitch, of Henry county,—A. W. Heise, of Will county.

The reports of the standing committees being in order, a communication and report from Dr. C. Goodbrake, chairman of the Committee on Practical Medicine, was presented by the Secretary. After a considerable part of the report had been read by the Secretary, on motion of Dr. W. M. Chambers it was referred to the Committee of Publication, with discretion to publish so much as they deem proper.

During the reading of the report on Practical Medicine, the President, Dr. David Prince, of Jacksonville, arrived and took the chair.

The Committee of Arrangements also reported as present the following additional delegates and members.

Dr. T. D. Fitch, of Kewanee, from Henry Co. Med. Society.
" A. W. Heise, of Joliet, from Will county Med. Society.

Dr. A. R. Spears, of Kansas, from Esculapian Society.
" Daniel Brainard, of Chicago, from Rush Med. College.
" DeLaskie Miller, of Chicago, from City Hospital.
" David Prince, of Jacksonville, Permanent Member.

Dr. J. S. Whitmire, of Metamora, presented and read a report on the Treatment of Rheumatism, which was referred to the Committee on Publication.

The Committee on Drugs and Medicines being called, the Secretary read a letter from Dr. F. K. Bailey, of Joliet, chairman of the committee, apologizing for the failure to report, which letter was referred to the Nominating Committee.

The Treasurer, Dr. J. W. Freer, of Chicago, presented and read his annual report, as follows:

Illinois State Medical Society,

To J. W. Freer, *Treasurer*, Dr.

To cash paid Wm. Cravens for printing transactions for 1859,		$158 00
" " " Dr. J. W. Phillips, for Prize Essay,		50 00
" " " Dr. A. S. Hudson, Prize Essay,		20 00
" " " Postage,		1 50
		$229 50

Cr.

By cash for annual assessment and initiation fees,	$190 00
" " of Dr. N. S. Davis for Prize Fund,	20 00
" " Dr. Blaney former Treasurer Prize money,	30 00
" " Dr. J. M. Steele, Prize Essay on Opium,	20 00
	$260 00
Balance in the Treasury,	$30 00

The report was accepted, and ordered to be printed in the proceedings of the Society.

The Committee to nominate officers for the ensuing year, presented the following report:

For President,

Wm. M. Chambers, M. D., of Charleston.

For Vice Presidents.

T. K. Edmiston, M. D., of Heyworth.
H. R. Payne, M. D., of Marshall.

Treasurer.

J. W. Freer, M. D., of Chicago.

Place for the next annual meeting, Jacksonville, Morgan county, Ill.

On motion, the report was accepted and adopted unanimously.

On motion, the Society adjourned until 8 o'clock, P. M., to hear the annual address.

EVENING SESSION.

At 8 o'clock, P. M., the Society, with a large audience of citizens, assembled in the Chapel, and were called to order by the President. Dr. N. S. Davis, of Chicago, then delivered the Annual Address. The subject was the "Mutual relations and consequent mutual duties of the medical profession and the community." Its delivery occupied three-quarters of an hour.

Dr. David Prince, of Jacksonville, the retiring President, then read an interesting valedictory address, on the legal relations and responsibilities of the physician and surgeon. It was listened to with marked attention and pleasure.

On motion, the Society adjourned to 9 o'clock, A. M.

SECOND DAY.—MORNING SESSION.

At 9½ o'clock, A. M., the Society was called to order by the President, Dr. D. Prince, who, after a few remarks, introduced the President elect, Dr. W. M. Chambers, to the chair. Dr. Chambers thanked the Society for the honor conferred upon him, and proceeded with the regular order of business. The Secretary read the minutes of the last meeting, which were corrected and approved.

The report of the Standing Committee on Obstetrics being called for, Dr. W. H. Byford, the chairman, was absent. He had prepared a report, however, which was presented by the Secretary, and an abstract of the same read, when on motion the report was referred to the Committee of Publication.

Dr. DeLaskie Miller of Chicago, from the Special Committee on the Hygiene and Sewerage of Cities, presented and read

a report, which was accepted, and referred to the Committee of Publication.

On motion of Dr. S. York, the order of business was suspended, for the purpose of hearing from the delegates appointed at the last meeting of the Society, to attend the American Medical Association, and to fill such vacancies as may be found to exist.

Six of the delegates previously appointed announced themselves as unable to attend the coming meeting in New Haven, and their places were filled by the following: Z. H. Whitmire, of Metamora; John Tenbrook, of Paris; A. A. Dunn, of Cambridge; Charles Johnson, of York; A. H. Luce, of Bloomington; T. D. Fitch, of Kewanee.

Z. H. Whitmire, of Metamora, Ill., was proposed by W. H. Davis; A. A. Dunn, of Cambridge, Henry county, was proposed by T. D. Fitch, and both unanimously elected permanent members of this Society.

The hearing of reports from standing committees was again resumed.

Dr. D. Brainard, of Chicago, Chairman of the Committee on Surgery, presented his report, consisting of a paper written by himself; another by Dr. Powell, of Chicago, on Fractures; one by Dr. D. Prince, of Jacksonville, on Silver Sutures; and one by Dr. I. S. Whitmire, on the Bite of Serpents. He also exhibited to the Society several new surgical instruments, making extempore comments on their uses and utilty.

Dr. D. Prince moved that the report of Dr. Brainard be accepted and referred to the Committee of Publication, with instructions to print the same, which was adopted.

On motion, the Society adjourned.

SECOND DAY—AFTERNOON SESSION.

At 2 o'clock, P. M., the President, Dr. Chambers, called the Society to order. The Secretary, in behalf of the Committee of Publication, presented the following report, which was accepted, and its recommendations adopted, viz.:

Report of Permanent Secretary in behalf of the Publishing Committee.

As soon as practicable after the last Annual Meeting, the Transactions of the Society were sent to the printers for publication.

400 copies were printed, 150 of which have been distributed to members of the Society, the editors of Medical Journals, and the Secretaries of other State Medical Societies. 250 copies remain on hand for the use of the Society. The Transactions of all previous years remain as represented in the report of last year. The expense of printing the Transactions for 1859 was $158.00, as stated in the report of the Treasurer. Besides this, the Permanent Secretary has paid, in postage on copies of the Transactions distributed, and in letters in relation to the business of the Society, five dollars more, a bill for which accompanies this report.

From the fact that the printed copies of the Constitution and By-laws of the Society are nearly exhausted, your Committee would recommend that they, together with all amendments, be published with the transactions of the present meeting.

N. S. DAVIS,

Paris, Ill., May 9th, 1860. *Permanent Secretary.*

The Committee on Nominations then presented the following report, which was accepted and adopted:

That the annual assessment for 1860 be *two* dollars.

STANDING COMMITTEES.

Committee of Arrangements.—Drs. D. Prince, O. M. Long, A. McFarland, N. English, Henry Jones, of Jacksonville.

Committee on Practical Medicine.—Drs. S. T. Trowbridge, of Decatur, Macon county, John Swain, of Champaign, Champaign county, D. E. Foote, of Belvidere, Boone county.

Committee on Drugs and Medicines.—Drs. F. K. Bailey, of Joliet, Will county, R. G. Laughlin, of Heyworth, McLean county, H. R. Payne, of Marshall, Clark county.

Committee on Obstetrics.—Drs. T. D. Fitch, of Kewanee, Henry county, DeLaskie Miller, of Chicago, Cook county, J. B. Curtis, of Decatur, Macon county.

Committee on Surgery.—Drs. A. W. Heise, of Joliet, Will county, J. W. Freer, and E. Andrews, of Chicago, Ill.

SPECIAL COMMITTEES.

Itinerant Practitioners.—Drs. S. York, of Paris, Edgar co., J. P. Apperson, of Bourbon, Douglas county, John Wright, of Wapella, DeWitt county.

Diseases of the Eye.—Dr. E. L. Holmes, Chicago.

Typhoid Fever.—Drs. H. Noble, of Heyworth, McLean county; Hiram Nance, of Lafayette, Stark county; L. D. Martin, of Shelbyville, Shelby county.

Stomatitis Materni.—Dr. A. J. Crane, of Champaign City, Champaign county.

Medical Electricity.—Dr. J. A. W. Hostetter, of Decatur, Macon county.

Assistant Secretary.—Dr. O. M. Long, of Jacksonville.

Report from the Special Committee on Chlorosis being called for, Dr. E. W. Moore, chairman of the committee, was absent, but had sent a communication to the effect that he had been prevented from finishing his report by sickness, but would have it completed in a few days and leave it at the disposal of the Society. On motion, Dr. Moore was requested to finish his report, and forward it to the Committee of Publication.

Dr. A. Hard, of Aurora, chairman of the Committee on Veratrum Viride, had sent his report, which was read by the Secretary, and referred to the Committee of Publication.

Dr. E. L. Holmes, of Chicago, chairman of Special Committee on Diseases of the Eye, presented and read his report, which was accepted and referred to the Committee of Publication.

Dr. N. S. Davis presented and read an abstract of a paper on the food of infants when deprived of the milk of the mother; which was accepted and referred to the Committee of Publication.

Dr. N. S. Davis was requested to continue his researches as a Special Committee on the Changes in the Blood during continued Fevers.

Dr. D. W. Stormont, from the Committee on Prize Essays, reported that only one Essay had been received; and that

came into the hands of a majority of the committee at so late a period that they have been unable to read it. The Committee therefore recommend the continuance of the offer for Prize Essays another year; and that the present essay remain as a competitor for it. The report of the committee was accepted and adopted.

Dr. DeLaskie Miller, of Chicago, was requested to continue as a Special Committee on the Hygiene of Cities.

Dr. H. W. Davis, of Terre Haute, Ind., was appointed a Special Committee on Serous Inflammation.

Dr. D. W. Stormont, Chairman of the Committee on Registration, made the following report, which was accepted and adopted:

"The Committee on the Registration Law, as instructed at the last meeting of the Society, would present the following petition for the signature of the officers, viz:

"*To the Hon. the General Assembly of the State of Illinois:*

"The undersigned, officers of the Illinois State Medical Society, in behalf of said Society, respectfully ask your Honorable Body to pass a law for the Registration of the Births, Marriages and Deaths in this State. Sanitary science demands it, and the interests of the people would be greatly advanced by it.

"Signed by order of the Society, adopted at the tenth annual meeting, held in Paris, Edgar county, May, 1860.

"The Committee have prepared a Law, which will be laid before the Legislative Committee having this matter in charge.

"We would request each local medical society to memorialize the Legislature on this subject. Will some member in each Society see that this matter is attended to?"

Respectfully submitted.

D. W. STORMONT,
Chairman of Committee.

Dr. J. S. Whitmire, of Metamora, offered the following resolution, which was adopted unanimously:

Resolved, That the thanks of this Society are due to the

Physicians of Paris in particular, and to the citizens generally, for the hospitable manner in which they have entertained its members during its present session. And that we will carry home with us the kindest regards for their future prosperity and welfare.

Dr. Brown offered the following resolution, which was adopted unanimously, and, together with that offered by Dr. Whitmire, was ordered to be printed in the local papers in Paris.

Resolved, That the thanks of the Illinois State Medical Society are hereby tendered to the Trustees and Members of the Methodist Episcopal Church, for the use Elliott Chapel during the present annual session of this Society.

Dr. D. W. Stormont, chairman of the Committee on Unfinished Business, reported that it would be proper to hear from the Committee on Legalizing Dissections, found on page 13 of Transactions for 1859; also from the Committee on Further Accommodations for the Insane; also from the committee to whom was referred the charges against Dr. White, of Salem; and to act on the resolutions offered by Dr. Washburn, and found on page 15 of the Transactions; and an amendment to the constitution found on page 18.

Dr. York, chairman of the Committee to Memorialize the Legislature in favor of Legalizing Dissections, reported verbally that there had been no session of the State Legislature since the last meeting of the Society, and the committee was continued another year.

Dr. Prince, chairman of the Committee on Further Accommodation for the Insane and Idiotic, reported verbally, that the work of providing further accommodations for the insane was already far advanced, but nothing was yet done in relation to the training of imbecile and idiotic children. The committee was continued, with instructions to memorialize the next Legislature in favor of suitable provision for the education of idiotic and imbecile children.

On motion of Dr. J. M. Steele, the resolutions found on page 15 of the Transactions for 1859, were taken from the table. On motion of Dr. S. York, their consideration was postponed until the commencement of the evening session.

Dr. W. M. Chambers, from the committee to which was referred the charges against Dr. Wm. White, reported that they had notified Dr. White of the charges preferred by Dr. Haller, and that he could be heard in defence at this meeting of the Society, or in any other way he might think best for the interests of all parties. The committee had received no reply or communication from him of any kind. After reading some of the evidence furnished by Dr. Haller in support of his charges, Dr. H. W. Davis moved that Dr. Wm. White, of Salem, be expelled from this Society, which was adopted by a unanimous vote.

The constitutional amendment found on page 18 of the Transactions for 1859, making the time of each annual meeting, as well as the place, depend on the vote of the Society, was taken up and adopted unanimously.

Dr. Prince moved that the time of holding the next annual meeting of the Society be on the first Tuesday of May or June, to be determined by notice of the Secretary, when it shall be known what time the meeting of the American Medical Association is to be held in 1861. Adopted.

On motion of Dr. R. Laughlin, Dr. T. K. Edmiston, of Clinton, was appointed a delegate to represent this Society in the next meeting of the Ohio State Medical Society, to be held at White Sulphur Springs.

On motion of Dr. Brown, Dr. John Swain, of Champaign, was appointed a delegate to represent this Society in the next annual meeting of the Kentucky State Medical Society.

On motion of Drs. T. D. Fitch, N. S. Davis and David Prince, were requested to furnish to the Committee of Publication copies of their addresses for publication in the Transactions of the Society.

On motion of Dr. T. D. Fitch, the Secretaries of Local Societies were requested to procure the publication of the address of Dr. N. S. Davis, in as many of the newspapers of their several localities, as possible.

Dr. J. H. Whitmire, of Metamora, was appointed a special committee to report on Erysipelas.

The following named members were duly nominated and elected delegates to attend the annual meeting of the American Medical Association for 1861:

Drs. A. W. Hostetter, of Decatur,; J. S. Whitmire, of Metamora, Charles Johnson, of York; R. H. Brown, of Mahomet; T. D. Fitch, of Kewanee; J. D. Steele, of Grandview; Geo. Beman, of Decatur; S. York, of Paris; H. W. Davis, of Terre Haute, Ind; D. E. Foote, of Belvidere; D. Prince, of Jacksonville; W. D. Chambers, of Charleston; C. Goodbrake, of Clinton; H. R. Payne, of Marshall; C. N. Andrews, of Rockford.

On motion, the Society adjourned to 8 o'clock, P. M.

SECOND DAY.—EVENING SESSION.

At 8 o'clock, the Society was called to order by the President, Dr. W. M. Chambers.

Dr. O. Q. Herrick, of Kansas, permanent member, arrived and took his seat.

The president announced the following committee on Prize Essays for the ensuing year; Drs. H. A. Johnson, J. V. Z. Blaney, and E. L. Holmes, all of Chicago.

Dr. T. D. Fitch moved to take up the following resolutions, offered by Dr. Washburn at the last annual meeting of the Society.

Whereas, The American Medical Association is a national Association composed of delegates and members from all parts of the United States, meeting on terms of perfect equality:

Therefore, *Resolved*, That in the opinion of this Society, all the officers of the Association should be selected strictly with reference to *merit*, and without any regard to their place of residence.

Resolved, That the custom of selecting the President of the Association exclusively from the profession of the city in which the Annual Meeting is held, is not only derogatory to the general character of the organization, and calculated greatly to lessen the honor which should attach to that office, but past experience has shown that it leads directly to local divisions, jealousies, and injurious partisan strife.

Resolved, That the delegates from this Society to the Asso-

ciation, be instructed to use their influence to abrogate the custom alluded to in the preceeding resolution.

Resolved, That the Secretary be directed to furnish copies of the foregoing resolutions to other State and Local Medical Societies, and ask their attention to the same.

The motion was seconded by Dr. J. M. Steele, and after some remarks by Drs. Steele, Brainard, York, and Whitmire, the preamble and resolutions were adopted almost unanimously.*

The report of Itinerant Practitioners being called for, Dr. Curtis, one of the committee, made an amusing verbal report; after which, Dr. H. W. Davis, of Terre Haute, chairman of the committee, read a lengthy report in the form of a satirical poem, which was listened to with interest.

On motion of Dr. J. S. Whitmire, the thanks of the Society were tendered to Dr. Davis for his report, and a cane ordered to be presented as a token of their appreciation of its merits.

On motion of Dr. Brainard, the President was appointed to deliver the public annual address at the next meeting of the Society.

On motion of Dr. Brainard, the Society adjourned *sine die*.

N. S. DAVIS,

Paris, Edgar Co., Ill. *Permanent Secretary.*

The Epidemic among Cattle.—The Legislature of Massachusetts has appointed a commission of three persons to investigate the character of the apparently contagious disease which is now spreading with great fatality among the herds throughout the country. The State is to assume the cost of the investigation, paying to the owners the value of cattle which are to be slaughtered, under the direction of the committee, on the appearance of the disease. The pathological appearances of the animals which were killed as soon as affected, or which died from the disease, are very indefinite; but it appears to be a disease of the lungs, and the first symptoms are said to be a croup-like respiration.

*There being but five or six votes in its favor.—Ed.

Miscellaneous.

FLORENCE NIGHTINGALE.

Florence Nightingale needs but few prefatory remarks. Reared in luxury, and fitted both by natural and acquired endowments to adorn the most elevated social position, her immolation of self and voluntary resignation of those domestic ties which constitute the charm of woman's life, more especially commend her to the world's reverence and praise. Long before the disastrous Crimean war was projected, her gentle ministerings were known throughout Great Britain, Germany, and Egypt, where she attended the sick Arabs. She daily frequented the hospitals and reformatory institutions of London, Edinburgh, and the continent, and, in 1851, went to the great Lutheran Hospital at Kaiserwerth, on the Rhine, where she spent months in constant attendance on the patients, and perfected herself in the art of nursing. On her return to England she undertook the management of the Sanatorium for Governesses, and by her efficient aid, both monetary and personal, saved the institution from the neglect and ruin into which it was fast sinking. Immediately afterwards came accounts of the sufferings in the East, and of the additional hardships which the wounded soldiers were enduring from want of proper care and attention. The English, with their characteristic promptness, soon raised the sum of £15,000, which was expended in articles of food and clothing, for the relief of their army. It was soon felt, however, that the sufferings were chiefly to be ascribed to the absence of proper nursing, and, at the instigation of the Hon. Sydney Herbert, Miss Nightingale was selected as the person best calculated to undertake the control of the British establishment for wounded soldiers and sailors in the Crimea. Many would have shrank from such a proposal, knowing the terrible dangers and toils to which it would necessarily subject them; but Florence Nightingale gloried in the prospect. It was a more extended field for her labors, and one in which her Christian vistues of philanthropy, benevolence, and charity, could be exercised to the utmost.

In October, 1854, accompanied by the Rev. Mr. Brice-

bridge and his wife, and thirty-seven nurses, she left England on her holy and ennobling mission, reaching Scutari in November, just before the wounded of Balaklava were brought into the hospitals. There it was that she proved herself to be eminently capacitated for the arduous duty she had undertaken. Throughout the wards, where confusion had reigned previous to her arrival, the most perfect order and regularity were maintained; and it was not only while actively engaged for the relief of the sick, that her presence was acknowledge by all to be a blessing. There was many a word of encouragement and smile of sympathy which revived the despondent hearts of the poor sufferers more than any personal aid could possibly have done. In proof of this there is a passage from one of the soldiers' letters, which, though written in a homely style, is replete with poetry which must appeal to every human heart. In speaking of the pleasure it was to see Miss Nightingale pass, he says:

"She would speak to one and to another, and nod and smile to many more, but she couldn't do it to all, you know; we lay there by hundreds; but we could kiss her shadow, as it fell, and lay our heads on the pillows again, content."

After her return from the Crimea, $600,000 were placed at her disposal as a testimony of a nation's gratitude; this sum she appropriated to the erection and management of a Training School for Nurses, thus endeavoring to perpetuate her own example in others.

Very little has been heard of her for two years, but during this time she has not been idle; in her retirement she has written a hand-book called "Notes on Nursing; what it is, and what it is not," which was issued a month ago, in London. This volume is the result of her own experience in her philanthropic career, and by its publication she bestows as great services as she rendered in the hospitals at Scutari.—*N. A. Medico-Chirurgical Review.*

Opium an Antidote for Belladonna.—Dr. Lopez, of Mobile, mentions in the *N. A. Medico-Chirurgical Review*, a case of poisoning from belladonna, successfully and speedily relieved by opium, thus showing the complete antagonism of the two poisons. The suggestion was derived from the practice of Dr. Graves, of Dublin. When belladonna is freely used its toxic effects are not uncommon, and it is important to bear in mind this simple antidote.—*St. Louis Med. and Surg. Journal.*

CHANGES IN MEDICAL SCHOOLS.

New York Medical College: Dr. Horace Green has resigned the presidency of the Faculty of the New York Medical College; and the chairs of Physiology, and of Obstetrics and Diseases of Women and Children, in the same institution, have been vacated by the ritirement of Dr. Austin Flint, Jr., and Dr. E. R. Peaslee.

Dr. W. A. Hammond, U. S. A., has been appointed Professor of Anatomy and Physiology in the University of Maryland, the chair having been resigned by Professor Roby. On account of the death of Professor Frick, the chair of Materia Medica and Therapeutics, in the same college, has been rendered vacant, but has been filled by the appointment of Dr. Edward Warren, of Edenton, North Carolina.

In the New Orleans School of Medicine, a number of changes have been made. Professor Austin Flint, Jr., has been appointed to the chair of Physiology and Microscopic Anatomy, its former incumbent, Dr. Peniston, having been transferred to that of Anatomy. The latter chair was vacated by Professor Beard, who now becomes Professor of Surgery and Surgical Pathology. Another chair, that of Clinical and Operative Surgery, has been established, to which Professor Choppin has been appointed.—*N. A. Medico-Chirurgical Review.*

Ointment for Warts.—The *Repertoire de Pharmacie* reproduced from the *Allgemeine Medical Central-Zeitung*, the following prescription for an ointment strongly recommended by Dr. Blaschko for the destruction of warts:

℞ Potassæ chromatis, grs. ij.
Adipis, ʒ j. M.

The excrescences should be rubbed with this preparation twice daily, and in the space of three or four weeks the most inveterate verrucose productions are said to be entirely removed.

Medical College of the State of South Carolina.—The class in attendance on the lectures for the session of 1859-60, amounted to two hundred and forty-nine students; and the degree of Doctor of Medicine was conferred, at the Annual Commencement, on one hundred and fifteen (115) candidates.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. July, 1860. NO. 7.

Original Communications.

ARTICLE 1.

REPORT OF SURGICAL CASES

TREATED AT THE CITY HOSPITAL DURING THE SPRING TERM, BY GEO. K. AMERMAN, M. D., ATTENDING SURGEON.

CASE 1.—*Fatty Tumor—Removal—Severe Erysipelas following the Operation—Recovery.*

Mrs. J. M., aged forty, born in New York; Grandmother died of cancer of the eye; mother died at the age of fifty-four, of tetanus, the result of an injury. In early life she had an affection of the lower lip, said to be cancerous, which was removed, but returned again before the wound had entirely healed, thus rendering a second operation necessary, which had proved a permanent cure. Father died at the age of forty, from some affection of the bowels.

Mrs. M. was married at the age of twenty-seven, up to which time she enjoyed ordinary good health, having never been of a robust constitution. She has given birth to five children, three of whom are now living, the youngest aged three and a half years—all healthy. Eight years ago, whilst nursing a child, she first observed a swelling, about the size of a small egg, situated just within the scapulo-clavicular articulation. She attributed its production to the carrying the child

so much on that side. The swelling, when first noticed, was free from pain and tenderness, movable, and natural in temperature. The skin covering it was normal in appearance. It felt, as she expressed it, like a piece of soft sponge. From that time till the present it has slowly increased in size, otherwise retaining its original characteristics. About two years ago she began to feel shooting pains down the arm, fore-arm, and hand. During the last six months its growth has been much more rapid than formerly. It has now attained the size of a large orange, is situated over the anterior surface of the shoulder, just below the clavicle, extending over the side of the chest, and overhanging the axilla. It is nearly globular in shape, is freely movable, having no neck, and has an elastic, almost fluid feel. The skin covering it presents a natural appearance, except, perhaps, an unusual number of veins ramifying over its surface. It is free from pain and tenderness, except when handled a length of time, which gives rise to a shooting pain down the arm. On careful examination it is found to be of different density in spots. At points there are slightly elevated nodules which are quite hard and dense, imparting the sensation of a solid floating in in some fluid. These solid substances were first observed by the patient about six months ago, being more sensitive than other parts of the tumor. The lymphatic glands in the axilla and vicinity are healthy. The general appearance of the patient is good, but not that of robust health. The local character of this tumor, its slow growth, the absence of pain, its being movable, its not having involved the surrounding parts, or neighboring lymphatics, induced me to regard it as non-malignant and recommend its removal.

The operation was performed April 4th, 1860. Two incisions extending obliquely downward and inward, from a point about half an inch from the scapular end of the clavicle, five inches in length, enclosing an elliptical portion of the integument, and extending through the skin, brought the mass fully into view, and rendered its enucleation simple and easy, by the fingers alone. One vessel, only, required the ligature. Simple dressings were used, and an anodyne (½ gr.

Morphia) given to quiet the patient. The anesthetic employed was Ether Sulph., which, though it produced complete anesthesia, had a very unpleasant effect after the operation, retarding reaction, and causing continued retchings and nausea for twenty-four hours. The tumor consisted of one mass of fat, thinly enveloped by a cyst wall but having numerous prolongations sent out into the surrounding parts. The whole mass was lobular, its central portion containing a solid material about the size of a small egg, of much firmer growth and consistence.

April 5.—Patient did not rest any last night, the nausea and frequent attempts to vomit continuing to harass her constantly. Pulse 120; skin hot; considerable thirst; wound glazed over throughout most of its extent and transudes a thin, bloody, serous fluid. Ordered cold water dressings to be applied, cooling draughts, and small doses of opium to allay the irritability of the stomach. At noon the excitement and febrile reaction seemed altogether disproportionate to the severity of the operation, and I was at a loss to account for it. Ordered Tr. Aconite ℥ i, tr. Opii. Camph., Spts. Nit. Dulc. āā ℥ i. Teaspoonful every three hours.

Evening—Pulse 130; skin very hot; face flushed, and pain in every part of the body. In addition to the above gave an anodyne, (1 gr. Morphia.)

April 6.—Slept some last night; nausea almost gone. Fever still high; pain in the head, back, and limbs, as yesterday; pulse 136; wound perfectly dry, the edges in apposition, but not adherent or disposed to action. All around, and extending over that side of the chest, neck, and shoulder, there is a bright red flush, indicative of the trouble and constitutional disturbance. Discontinued the cold water dressings, removed a part of the sutures, and painted the wound with the Tr. Iodine. In place of the fever mixture gave pills of Quin. et Ferri. At noon the redness had extended and the fever increased. Tr. Iodine to the wound, and in addition to the pills, the Tr. Ferri. Mur. every hour. In the evening the remainder of the sutures were removed, a poultice of flax seed applied, and 1 gr. Morphia given to procure rest.

April 7.—Slept some the latter part of last night, and feels a little more comfortable this morning. Fever slightly diminished; pulse 120, feeble; tongue coated; bowels costive. The wound discharges a small quantity of unhealthy, offensive pus and blood. Erysipelas stationary. Continued the same treatment as yesterday, with beef essence every hour. At noon more restless, and fever as severe as ever; gave a full dose of opium.

April 9.—Condition much improved since last note. Erysipelas much less; the wound discharging freely, good, healthy pus; fever almost gone. Discontinued the Tr. Ferri. Mur.; other treatment same.

April 12.—Erysipelas entirely gone; wound granulating finely; no fever; patient weak and prostrated. Continued the Quin. and Iron, and simple cerate to the wound, till it was entirely healed, which rapidly followed the subsidence of the erysipelas.

Remarks.—An interesting feature connected with the above case, is its hereditary history. The grandmother and mother of this patient were both affected with cancer. The first, with, probably, encephaloid of the eye, which caused her death; this being, according to some, the most active and malignant form of cancer. The latter with epithelial cancer of the lip, which is, according to many authors, the mildest form of the disease, the least malignant, and least likely to return after removal. With this hereditary predisposition, we might have anticipated cancer in this patient, and such, indeed, was the opinion of some of the surgeons who had been consulted regarding it. The hereditary tendency of cancer is a well recognized fact, but whether the children of parents affected with simple, non-malignant growths, are more liable to suffer from malignant disease than the offspring of healthy parents; or, whether the children of parents affected with cancer are more liable to suffer from simple, non-malignant growths, are questions which, as yet, remain unanswered. Paget, in his article on tumors, alludes to this subject.

Another interesting feature in the above case, was the presence of those indurated knots in its substance. These

were found, on microscopical examination, to be nothing more than an interlacement of fine fibres, similar, in all respects, to the fibro-cellular tissue in other parts of the tumor. A hard mass, developed in the substance of a fatty tumor, Paget regards as the result of a slow form of inflammation, producing contraction, and hardening of the fibro-cellular tissue of the part, and he mentions a specimen contained in the Museum of St. Bartholomew's Hospital, of a fatty tumor, the seat of osseous formations. Without a knowledge of these facts, the diagnosis might be obscure and difficult. Fatty tumors yield to no treatment except extirpation by the knife, and being generally enclosed in a thin cyst, the operation is exceedingly simple and easy. The wound seldom unites by the first intention.

CASE II.—*Talipes Varus—Both Feet—Division of the Tendo-Achillis—Result Successful.*

Walter McPherson aged one year and nine months, applied as an out patient at the Hospital, March 6th, 1860, for a congenital deformity of the feet. Both feet turned inward, the soles facing each other. In walking, the weight of the body rested entirely on the outside of the feet, at which point, just over the tarso-metatarsal articulation, an artificial bursa was developed. The elevation of the heel was not a very prominent feature in this case, but any attempt to bring the feet to their normal position, caused the Tendo-Achillis to become tense and prominent. The deformity was greatest in the left foot. The treatment consisted in division of the Tendo-Achillis, the application of a sheet iron shoe with side splints extending up the leg, and the subsequent use of an ordinary shoe with a stiff sole. The operation was performed March 6th, anesthesia produced by Ether Sulph., which acted very kindly and without any unpleasant after effect. The iron shoes were immediately applied, the feet brought very nearly into proper position, and their use continued for four weeks, when they were replaced by common shoes with stiffened soles.

Remarks.—Tenotomy, or the sub-cutaneous division of ten-

dons for the relief of deformities, and especially those of the feet, has now become such an established principle in the treatment of these difficulties as to be no longer a question for discussion. It, conjoined with proper mechanical means, seldom fails to entirely remedy the deformity, and when properly executed, is free from danger. Mechanical appliances form an important and essential part of the treatment, their object being to reduce the deformity and retain the member in its proper position. These, then, form the elements of treatment for club-foot. First, the division of the tendon or tendons at fault; Second, the use of such an apparatus as will reduce and prevent the recurrence of the deformity.

The division of the tendons is a simple, easy, and safe operation. The particular tendon or tendons at fault will depend on the variety of the deformity, there being four for each foot. Immediately after the division of the tendons, an apparatus must be applied of such make as to bring the foot nearly or quite into its proper position. Generally it requires some time, perhaps a week, to entirely reduce the deformity, but by perseverance it can always be accomplished, providing the seat of the difficulty was in the divided tendon. Great care is necessary during this period of the treatment, as the result will depend, almost entirely upon a proper adaptation of the mechanical appliances used. These must be carefully padded, worn day and night, and readjusted as often as they become at all loose or deranged. The length of time necessary to effect a cure varies in different cases, from four weeks to as many months, so that it is impossible to fix any definite time required to cure any particular case. The causes of this deformity, the appearances on dissection of the deformed part, the age most favorable for the treatment, and the different modifications of apparatus used, are all matters of interest and importance connected with this subject, and demand the careful attention of those who attempt their management.

CASE III.—*Fracture of both Bones of the Leg—Imperfect Union—Application of Side Splints—Recovery.*

Hugh Jones, aged twenty-seven, born in Wales; habits

moderately temperate; general health good; whilst engaged in blasting a tree, January 12th, 1860, a portion of its root struck him with great violence, about the middle of the left leg, producing an oblique fracture of the tibia and fibula. The soft parts were uninjured to any great extent. A surgeon was called, who immediately reduced the fracture and dressed it with compresses, two side splints, and a roller bandage. He was confined to his bed, and everything progressed favorably for three weeks without any change in the dressings or re-adjustment. At the end of this time the dressings were removed for the first, but union not being firm, they were again applied in the same way, and the part maintained at perfect rest for four weeks longer. At this period, seven weeks from the receipt of the injury, all the dressings were removed, and the patient directed to use his limb as much as possible.

March 27th, ten weeks from the date of the fracture, and three after all treatment had been discontinued, he was admitted into the City Hospital. The limb, at the time of his admission, was greatly swollen, and any attempt to use it produced severe pain at the seat of the fracture. The foot of the affected side was rotated inward, the limb having an outward curvature of considerable angularity at point of fracture. On taking hold of the limb and using gentle pressure, it readily yielded at the seat of the fracture, and could be brought almost into its proper position, the union being too imperfect to support its own weight while extended. It was dressed with a roller bandage from the toes to the knee, two well-padded side splints, and a second roller, applied rather tightly over the whole; also enjoined perfect rest. This treatment was continued for four weeks, the dressings re-adjusted weekly. At the end of that time the limb was perfectly straight and the union much more firm. A starch bandage was now applied, with pasteboard splints, and the patient allowed to go about on crutches. This was continued for three weeks longer, when all dressings were removed and the patient discharged cured, having been under treatment at the Hospital seven weeks.

Remarks.—The important practical feature connected with the above case is the admonition furnished us, in observing the effect produced by the too early removal of the dressings and the attempt to use the limb before union was firmly established. At the end of seven weeks everything looked favorable, the limb having united without deformity, and no doubt with considerable firmness, and had the dressings been continued a few weeks longer, the result would have been, in all probability, perfectly satisfactory. Three weeks later, and the limb is seriously deformed, movable at the seat of fracture, unable to support its own weight, swollen and painful, and this result, plainly attributable to the too early discontinuance of proper treatment. The length of time required for a perfect union in fractures of the leg, the first intimations of trouble if the dressings have been removed too early, the various plans of remedying the deformities which occasionally follow these accidents, and also the success we may anticipate in their proper management, are questions full of interest and importance, and having received, of late, careful attention and study from those eminently qualified, should be familiar to every one undertaking their management.

We have had another case somewhat similar to the above under treatment as an out-patient at the Hospital, and in this connection will give a brief abstract of the history.

Case IV.—E. L., aged nine months. About two months ago her mother observed that she favored her right arm, and flinched whenever she was carelessly handled. She, however, thought nothing serious of it, and as there was no swelling, no attention was paid to it. About three weeks ago she observed for the first, that the fore-arm was considerably bent, the convexity being on the dorsal surface. This alarmed her, and she applied as an out-patient at the City Hospital, April 17th, 1860. At the time of her application an angular curvature existed at about one inch below the elbow joint, having its convexity on the dorsal surface. The motions of the fore-arm were unimpaired; no pain on moving the part. The

nature of the case was very evidently fracture of both bones, and union with deformity. The treatment consisted in the application of a dorsal and palmer splint, confined rather closely by means of a roller bandage. Dressings readjusted weekly. Discharged cured May 15th, having been under treatment nearly four weeks. One common feature in both the foregoing cases, was the presence of what has been formerly regarded as the provisional callus. In the first case, a hard, elevated ring, completely encircled both bones at the seat of the fracture, and was apparently thickest on their convexity. In the latter case, the same condition existed at the fractured part, but not so distinctly marked. In both, this callus underwent partial absorption during the treatment, and doubtless will, in time, entirely disappear. This "provisional," or "ensheathing" callus, as it is termed by Paget, he regards as uncommon in the human subject, except the part be frequently moved, and the apposition imperfectly maintained. If this reasoning is correct, we must attribute its production, in the above cases, to the improper use of the part, and must expect its occurrence only in those instances where inadequate means are employed to maintain perfect rest and apposition of the fractured bones.

(To be continued.)

ARTICLE 2.

INTERCRANIAL TUMOR.

BY W. J. MOODY, M. D.

Edwin Williams, aged thirteen, form light and active, constitution robust, and health heretofore excellent, was afflicted about the first of May last, with a swelling on the left side of the neck, reaching from a point just posterior to the angle of the inferior maxilla, to one opposite to its articulation with the temporal bone. At first not much attention was paid to the

tumor, but it soon became so intensely painful as to alarm the parents, and excite my unqualified surprise. I was thus induced to make a more thorough examination, when I ascertained that the tenderness extended to the articulation. I now became satisfied that the inferior maxillary nerve was involved. If I had any doubts of this, they were soon removed by the appearance of a tumor upon the inside of the mouth, exactly at the point of division of the nerve, by the external pterygoid muscle. This protuberance became extremely painful, and it was with the utmost difficulty that the patient could separate the jaws far enough to admit necessary food.

Emollient and anodyne poultices were now kept constantly applied, externally, with the effect of mitigating, somewhat, the pain and swelling, until, finally, about a fortnight from the time of the first attack of the disease, it was dislodged from its first point of attack, only to re-appear immediately at another.

The patient soon began to complain of pain above and posterior to the angle of the right eye. Soon the flesh began to puff up at the point of emergence of the frontal nerve through the supraorbital foramen, and extending throughout the whole course of the nerve. This attack was attended with the same severe pain as the original one, for a few days, when it, in its turn, disappeared, to be followed immediately by the grave symptoms of intercranial tumor. I shall, in the course of these remarks, enter into no disquisition upon the probabilities of metastasis of nervous disease, in the present case, and others, but merely make a statement of "unvarnished" facts, leaving your readers to draw their own conclusions therefrom; premising only thus far, that the case may be found to present points of interest, both in regard to the peculiarity of its commencement, and in presenting the diagnostic signs of a disease, in the illustration of which our standard medical literature, as far as I have referred, is somewhat deficient.

The first symptom which supervened upon the transfer of the disease inwardly, was *intense* and *persistent cephalalgia.*

This would generally come on in the morning and continue throughout the day and greater part of the night, and was the most constant symptom throughout, of the course of the disease. About the first of June, strabismus of a decided character occurred, the sense of hearing became slightly impaired, and partial hemiplegia followed, upon the opposite side. The latter symptom, however, was quite mild, being indicated merely by slight numbness and coldness over the right side. About this time vertigo and vomiting occurred occasionally, and the mind also became much enfeebled, thus heralding the impairment which was taking place in the cerebral functions. To use the expression of the parents, he became notional and silly in conversation.

Toward the close of the month, the patient, while riding horseback, over a mile from home, was seized with an epileptic attack, fell from his horse, and was taken up and carried home insensible. Soon after being placed in bed he partially revived; his mind, however, remained in a sort of haze for over half an hour afterward, his conversation being mostly incoherent, and his eye-sight only partly restored in the mean time.

I should have mentioned that when I first attended the patient, he resided in Wheeling, Cook county, Ill. About the first of June I moved to my present locality. Here I received a minute account of the progress of the case, and finally, in July, he was brought here for treatment. I was struck at once, on seeing him again, by his debilitated and cachectic appearance. Judging that supporting treatment was one of the indications to be fulfilled, I at once prescribed Syrup Ferri. Iodidi, with blisters behind the ear. The temporary effect of this treatment was even more favorable than I had ventured to expect it would be. All the symptoms gradually abated, until about the middle of September, when the patient appeared, with the exception of occasional vertigo, and a slight vestige of strabismus, entirely recovered. No relapse followed until about the beginning of February last, when, in consequence of getting wet the symptoms all recurred. Now, at times, he exhibited phenomena

much resembling those of hysteria, appearing apprehensive, peevish, and difficult to please. His eyes became very sensitive to light; so much so that he would keep them closed for hours at a time, to avoid it. He was oppressed, much of the time, with that peculiar anxiety which is so often manifested upon the encroachment of disease upon the vital organs. In this condition he remained until the 22d, when a second epileptic attack closed the scene.

The best exposition which we have ever met with of cases of the above nature, is a monograph published by Freidreich,* containing the particulars of forty-five cases, eleven of which were observed by himself. I will present here an abstract from his article, showing briefly the symptoms, and the proportionate number of cases in which each presented itself, according to the locality of the tumor:

SYMPTOMS.	LOCALITY OF TUMOR.
Obstinate cephalalgia.	Cerebrum, 18 cases—(14.) Base of Brain, (9)—Frontal Headache, (13) Petuitary 1, case 1. Anterior base of brain, in all cases examined. Peduncl. Cereb. and Cerebel. Cerebellum, 8 cases—(7.)
Vertigo and Vomiting.	Cerebrum, (9.)
Derangement of motory functions, paralysis and epileptic convulsions.	Cerebrum, (14.) Base of Craneum, (common.) Peduncles, paralysis of face, opposite side.
Derangement of Special Senses.	Cerebrum, (10); Sight (7.) Base of brain, sight,(7); hearing,(5); smell,(3.) Pitutay case, 1 with double blindness. Anterior part of base, 2 cases, symptoms same as above. Pedim. des complex derang. spec. sense.

* *Beiträge zur Lehne oon dem Geschwulsten innerhalb der Schädelhähle, Wurz. urg*, 1853.

SYMPTOMS.	LOCALITY OF TUMOR.
Intelligence impaired.	Cerebrum, (11.) Base of brain, (5.)
Occipital cephalalgia.	Cerebellum (4.) This symptom, when it occurs, may be considered pathognomonic of tumor's location at this point.

The numbers not inclosed in brackets denote the number of cases seen; those not inclosed, the number of times the symptom alluded to occurred. Strabismus is mentioned as common.

ARTICLE 3.

STRICTURE OF THE URETHRA. TREATMENT OF AND OPERATION FOR.

BY S. WILKINS, M. D., VANDALIA, ILL.

January 4th, 1859, I commenced treating the following case, the subject of which I find to be thirty-seven years old, weight 165 pounds, (when in health,) and highth five feet, ten inches; temperament, nervous-sanguine; occupation, a farmer.

History.—May 1858, (as I learn,) he received a kick from a man which wounded the urethra. From the physicians who were called to treat the case, one of them when the accident first occurred, and the other soon after that time, I had learned that effusion in the scrotum and perineum took place, which was followed by suppuration. His condition when I saw him, was as follows:

Pale, emaciated, constipated; urine of a reddish color and appetite usually bad; sharp and anxious countenance; tongue coated with a dirty yellow; rigors and night sweats; passes no urine through the penis, but on examination a stricture is found about five or five and a half inches from the extremity of that organ in the urethra. Behind this stricture was a urinary fistula through which the urine all passed. Around this fistula the scrotum was drawn up and appeared adherent to the urethra. Being unable to control his urine, it dribbled away with irregularity. It was caught and absorbed by cloths, and its odor made it very disagreeable to be in the room. His condition was pitiable indeed. He was willing to submit himself to any treatment or risk which would promise the least prospect of cure.

Appropriate constitutional treatment was instituted, and his general condition soon improved. The local treatment consisted in that which is usual in such cases, viz: the introduction of catheters, bogies, and sounds, down to the stricture through which it was impossible to pass, although I took impressions with a wax bogie, learned the direction which the channel appeared to take, and made repeated trials. These trials were made with gum catheters and bogies of various sizes, flexible and inflexible, all of which had been bent in various directions, to suit the case if possible. By the introduction of catheters and bogies occasionally, the urine, to some extent, was made to flow out of the urethra at the extremity. This, however, would not continue long at a time, when the urine, or most of it, would pass through the stricture. Cauterization of the stricture was resored to with the nitrate of silver. It was introduced, protected on the side, and held in contact with the stricture for one minute, when it was withdrawn. Considerable pain followed its introduction, which would become so severe soon after as to require sedatives in large doses, to allay it. I had learned, from a wax impression, that the stricture was more in the left than the right side, which was taken advantage of, both in the introduction of the catheters and bogies, and in the application of the caustic. Although a bogie or catheter would sometimes

appear to enter and become grasped by the stricture, I was never able to introduce any instrument into the bladder. It appeared as though a part of the stricture might have been obliterated, as the instruments seemed to pass to a greater extent in the penis. Repeated stretching, however, might have elongated that organ. Not being able to decide this question, each one of the profession can decide it for himself. Having treated the case a sufficient length of time, and having consulted several surgeons in relation to it, I determined on the following operation, which was performed June 10th, 1859:

Operation.—Drs. Haller, Hickman, Bassett, and Tidball, being present, and kindly lending me their assistance, the patient was placed as in the operation for lithotomy. A metalic sound was introduced in the urethra down to the stricture, and supported there by an assistant. The scrotum was raised and supported, so as to be out of the way. Being under the influence of chloroform, an incision in the perineum was made, extending longitudinally over the urethra about two inches in length. This was gradually deepened in the direction of the sound till it was reached. It was found about one inch or over from the surface. In the region of vessels the back of the bistoury was used in place of the edge, and when cutting through the stricture, the point of the knife was directed to it by having the index finger of the left hand introduced into the wound, feeling for the point of the sound, and keeping the end of the finger as near to it as possible. The bistoury was directed to the stricture by the side of the finger, with its edge in the wound and back towards the scrotum, in order to lessen the chances of wounding the vessels. An instrument was introduced in the bladder, by finding the place from which the urine flowed; this latter having been retained for that purpose. The stricture was exceedingly hard to cut, so much so that the assistants could both hear and feel the cutting. When the stricture was opened and the sound passed through, it was withdrawn and a gum catheter of good size introduced in its place, when it was introduced on into the bladder, along a director which

was held in the urethra, at the wound, for that purpose. The director was then withdrawn, the wound closed over the catheter, cold water dressing compress and bandage applied. The hemorrhage was considerable, but the most of it was venous, and it was not very hard to stanch. The catheter was retained in its place by narrow strips of adhesive plaster wound spirally rounnd the penis, and attached to the catheter. The urine soon passed quite freely through the catheter.

The operation was a lengthy one, but was well borne, and the shock inconsiderable. The day after the operation the wound was examined, and the catheter was well surrounded with a provisional urethra, and but little of the urine passing through the wound. During the first two or three days the catheter has been out as many times, and re-introduced without much difficulty. Compresses have been kept on the sides of the wound in such a way as to keep the wound in juxtaposition at the bottom, from which it appears to be slowly healing up, but there is yet a considerable portion of the outer part of the wound yet ununited. The granlations are rather flabby and unhealthy, but stimulation by a solution of Nitrate of Silver, &c., has been applied with a hope of getting it to do better. It is now the 24th of June, and on the whole the case has done as well as could be expected. It is possible the wound might have been healed by the first intention, but it was purposely left open and kept so by introducing into it a wedge-shaped piece of sponge, partly for that purpose, and to prevent secondary hemorrhage, and is this did not occur, it appeared effectual for that purpose.

The suppuration in the urethra occurred during the second day, was moderately plentiful at first, but soon appeared to diminish.

It is now the 25th of May, 1860. The case has been well for several months, and the cure is complete. The man is attending to active business every day.

ARTICLE 4.

OPERATION FOR HERNIA.

BY F. B. HALLER, M. D., VANDALIA, ILL.

MESSRS. EDITORS: Having had an interesting case of hernia, to me, and thinking a brief account of it might interest you and the profession, I herewith send it to you to dispose of as you think best.

Was called, March 8th, 1860, twenty-five miles from our place, to see Daniel Boaz, aged 21, of a good constitution and temperate habits, who, the messenger said, had hernia that his attending physician could not reduce, and that he would have to be operated upon.

On my arrival I learned from the attending physician that he had diligently tried for two days to reduce the hernia by taxis, but with all his ingenuity had failed.

By this time four days had elapsed since it had become strangulated. Having obtained this history of the case, and diagnosed indirect inguinal hernia, I had him brought thoroughly under the aenesthetic influence of chloroform, when I made an effort by taxis to reduce, but finding it abortive, proceeded to cut down on the tumor, upon reaching the sack found it had become partially gangrenous, laying it open, discovered it was minus intestines it being merely a large portion of the omentum that had become strangulated, the part, at least one-half, that was gangrenous I cut off, dividing the stricture, put back all but a small portion that I retained in the wound, of the remainder. The wound was dressed in the usual manner. He bore the operation well. I left him six powders of calomel and opium, to be given at intervals of two or three hours, to be followed by oil. Since this he has been under the charge of his regular attending physician. He has recovered. The wound suppurated finely. I have written to his physician to send me a history of the case and its progress since the operation, and the treatment; but he has declined doing so, and I can only partly report. Suffice it to say say, he is one of that kind of practitioners who style themselves eclectics.

The points of interest in this case, to me, are, the length of time that had elapsed before operating, the violent taxis used, the amount of gangrened omentum cut off, and that he should recover.

ARTICLE 5.

GRADUAL DISLOCATION OF THE FEMUR FROM DISEASE.

UNION GROVE, April 23, 1860.

PROF. BRAINARD—Sir: As there is a case of some interest at present in the Racine County Poor House, I thought I would state the history and present appearance of the patient, and, if convenient, would like your opinion.

The subject is an African, about thirty years old, a strong, muscular man. He says that about fifteen years ago he was attacked with rheumatism in his left hip, which continued, with more or less severity, for three years, from which time till the present he has been unable to use his left limb, or to get about, except with a crutch.

Present appearance: General health good; the left limb much smaller than the other; length of limb the same, from foot to knee and from knee to head of femur, as the other; the head of the femur is removed from its socket, upwards and backwards, a trifle over three inches; the foot is drawn across the instep of the right foot, toes turning inwards; the knee of the left leg rests on the anterior of the right knee. There is no swelling of the hip, but some pain on moving it. By taking hold of the leg it can be moved in all directions, but not so readily backwards as in other directions. The above has been the condition of the leg for the last twelve years. He is not conscious of ever receiving any injury, or suffering from any disease except rheumatism.

He is anxious something should be done, if possible to relieve his present situation.

I state this case in hopes to obtain your opinion of it.

Yours, &c.,

H. D. ADAMS.

Remarks.—Spontaneous dislocation of the hip, or gradual dislocation, from disease, is an accident the occurrence of which has recently been called in question, particularly by Prof. Alden March, of Albany. The above seems to be a case of the kind. We have, in the cabinet of Rush Medical College, three specimens showing this species of accident, besides three more in which the nature of the accident is less certain, but they are, probably, cases of this kind.

We know of no treatment likely to be of service in relieving this deformity.

ARTICLE 6.

UTERINE TUMOR—DEATH—AUTOPSY.

BY R. F. ADAMS, M. D., AMBOY, ILL.

April 3, 1860.—Called to see Mrs. P., aged thirty-four years, who was, and had been for the last twelve hours previous, suffering under premonitory symptoms of labor, at her full period of utero-gestation. She informed me that she had a large tumor in her abdomen, occupying the whole of the right side. Parturient pains occurring quite often, I proposed an examination per vaginum, and also over the region of the abdomen, to ascertain the position of the tumor and the gravoid uteris, and the relation, as near as possible, of each to the other.

I found the tumor occupying a portion of the right iliac, the whole of the right lumbar, a portion of the umbilical, and a portion of the right hypochondriac region. The uterus

occupied its original position, seemingly, with the exception of being thrown somewhat to the left side. Through the parieties of the abdomen I followed the margin of the tumor, to its connection with the uterus. I endeavored to insinuate my fingers between the tumor and uterus by pressing upon the abdominal parieties, but I could scarcely feel the existence of a fissure between the two. In fact, from the most careful examinations I could make, it seemed to me that the tumor was continuous with the uterus, by a very broad and extensive connection with the fundus of that organ.

Some twelve hours having elapsed since my first examination per vaginum, in which I discovered the os tincæ beginning to dilate very slightly. Pains for the last two hours having increased in frequency and severity, I made another examination, and found the os uteri dilated some two inches in diameter, the membranes protruding, and labor progressing as in ordinary cases. I now sought for the presentation of the fœtus. I passed my fore-finger around the membranes and into the os uteri, where it met the left foot of the fœtus. Traversing still farther with my finger, I soon discovered the other foot, and after some two hours more, in which I watched the case with the most intense anxiety for the safety of both mother and child, I was enabled to traverse the anterior portion of the breech of the fœtus, its genital organs, with its knees coming down upon the arch of the pubes, and its feet presenting at the vulva. With the membranes yet entire, and the bag of waters quite protruding from the vulva, I ruptured them, and sought to return the feet and bring down the breech into the proper axis. Finding I could not do this, I brought down the feet, disengaged the knees from the arch of the pubes, and delivered my patient of a fine boy nearly in an asphyxiated condition; but by the most assiduous efforts, I succeeded in restoring it to active life. On the expulsion of the head, a free rush of blood followed for a moment. In some twenty minutes the placenta came down all right, and my patient was very easy and comfortable. My attention was now anxiously drawn to the uterus. I found the tumor occupying a new position, having dropped nearly into the

space just previously occupied by the uterus. I made search for the uterus below the tumor, as a distinct organ, but could only find it from the most careful manipulations I could make, continuous with the tumor, though contracted so firmly as to show that nature's work was so far completed favorably. The tumor now occupied the right iliac, the hypogastric, a portion of the left iliac, and lower half of the umbilical regions. Fearing too much pressure upon the uterus from the weight of the tumor, I applied a bandage over the abdomen in a manner to sustain a portion of its weight, gave my patient an anodyne, and left her in a very favorable condition. For two days she continued very comfortable and cheerful, and everything appeared to indicate a fortunate tendency. On the third day, however, my fears began to approach a dread reality that my patient must die. She began to complain of pains in the region of the left ovary, which soon spread over the hypogastric region, and to the right ovary. Every means in my power was put in force to arrest the progress of inflammatory action and restore her to a comfortable condition, but to no purpose. Death closed her sufferings on the morning of the sixth day after her confinement.

Autopsy twelve hours after Death.—The appearance of the abdominal parieties indicated a subject at full time of utero-gestation.

I commenced my first incision in the linea alba, at a point three inches above the umbilicus, and continued it down nearly to the symphysis pubis. I then made my second and last, from the umbilicus outward to the right side, which gave me a full view of the tumor and organs *in situ*. The tumor was now to be seen occupying the hypogastric, the lower two-thirds of the umbilical, and a good portion of the right iliac region. The small intestines and the ascending portion of the colon were pushed far to the left and upward from their natural position. On raising the tumor from its position, I found its growth continuous with the entire fundus of the uterus and the broad ligament and ovary of the right side. The parieties of the fundus of the uterus were very much increased in thickness, as also were the broad ligaments and

ovaries of both sides. All these organs were found in a sphacelated condition. In dissecting the tumor from the fundus of the uterus, the parieties of the latter were found to be in attachment with the former, a thickness of one and three-fourths inches from the margin of its cavity outward, anteriorly and posteriorly and laterally to the left side, and continuous to the right, embracing the broad ligament and ovary. On removing the tumor its weight was found to be ten and a half pounds. It was mostly of an organization resembling indurated liver, with portions somewhat softer, indicating a gelatinous or cheese-like substance. The blood-vessels of this morbid growth were enormous in size and immense in number, and all derived from the uterus.

It is proper to remark, in connection with this article, that the deceased had been apprised, for years, by the best medical authority in New England, that death would sooner or later supervene from this morbid growth. She had expressed to her relatives her desire, that when that time should come, an autopsy should be had, and the facts given to the medical profession for the benefit of humanity.

The tumor will be deposited in the museum of Rush Medical College, where all interested in pathological and surgical investigations can examine it.

ARTICLE 7.

1. CASE OF GUN-SHOT WOUND IN THE CHEST.—2. POISONING BY LAUDANUM.

BY A. GROESBECK, M. D., CHICAGO, ILL.

May 5.—Was called up at 12 o'clock at night, to see a man who had been shot with a pistol ball. Found a small round wound in the center of the sterum about midway of its length. There was very little hemorrhage externally, and no expectoration of blood or disposition to cough. The pulse small

and feeble and the extremities cold. On moving him, blood and air escaped from the wound. By auscultation the left lung was discovered to be wounded, and the bubbling of air in effused fluid was heard. I gave him opium and brandy freely, and at 4 A. M., a good reaction took place.

May 6.—Restless and complaining of pain in the chest. I continued the use of one-half gr. of morphia every three hours during the day.

May 7. Very comfortable; pulse 120, not very full; morphia given when required by pain. On percussion, left side very resonant, indicating effusion of air; bubbling sound in left side continues; respiration of right side natural.

May 8.—Patient free from pain; sleeps well; discontinue morphia.

May 9 and 10.—Condition the same except expectorating a few sputa containing blood, which ceased from that time, neither has there been any expectoration since, of any kind. Respiration in the right lung continued natural until the 13th, when the whole lung appeared to be solid. No respiration could be heard throughout the whole right side. This continued for several days, when respiration began to be heard at the top of the lung, and the dullness gradually to disappear, up to the present time, when there remains only a dullness in the lower part of the lung. The breathing in the left side is good throughout, except being somewhat puerile. The air and fluid appear to be absorbed, and the man is walking about the house. He sleeps well and has a good appetite, and has not had any bad symptom nor suffered any pain, except for four or five days after being shot.

Case 2.—May 22d, at 12 M., was called to see a young man nineteen years old, who had taken an ounce of laudanum, for the purpose of committing suicide. He had taken it at 11½ A. M. I found him in bed and asleep, but he was easily aroused. I had him taken up immediately, and after losing some time in persuading him to let me introduce the tube of my stomach pump, I pumped him out very thoroughly. But by this time an hour had elapsed since the taking of the

laudanum, and sufficient impression had been made on the nervous system to produce a perfect prostration of the vital powers. He sank into a profound coma, his pulse scarcely perceptible, skin cold, face turgid and livid, with, at times, hardly a sign of life. Under these circumstances I thought I would try Marshall Hall's method of keeping up respiration, hoping, if I could do it for sufficient time, the brain might recover from the poison of the opium. These appalling effects took place an hour after taking the laudanum, and I kept up the motion prescribed by Dr. Hall, until 6 P. M., without any apparent amendment, when suddenly at that time he threw up his arms, and raised up in bed, and of course recovered. He remained excessively drowsy for three hours after, but I kept him awake by walking and flagellation. The only remarkable feature in this case, is the apparent success following the treatment by Dr. Hall's method of respiration in a case seemingly hopeless.

TO THE MEDICAL PROFESSION OF ILLINOIS.

The Committee on Practical Medicine, appointed at the last sitting of the Illinois State Medical Society, would respectfully invite the co-operation of its members, and the profession of the the State in general, in furnishing material for their report, hoping each one will feel himself individually called upon to forward to the Chairman of this Committee, such observations, of a practical nature, pertaining to disease, of either epidemic, sporadic, or other nature, upon which he may feel inclined to treat. We ask of each to give his own views, in his own way, upon whatever subject would legitimately take a place in this report, and that the same may be submitted to us at as early a day as the 1st of February, 1861.

S. T. TROWBRIDGE, Chairman.

Decatur, Ill.

Editorial.

BOOK AND PAMPHLET NOTICES.

THE DISEASES OF THE EAR: THEIR NATURE, DIAGNOSIS, AND TREATMENT. By JOSEPH TOYNBEE, F. R. S., Fellow of the Royal College of Surgeons of England; Aural Surgeon to St. Mary's Hospital; Aural Surgeon to the Asylum for Idiots; Consulting Aural Surgeon to the Asylum for the Deaf and Dumb, etc.; London. Philadelphia: Blanchard & Lea. From S. C. Griggs & Co., 39 and 41 Lake street, Chicago.

The literature of aural surgery is less extensive than that of almost any other branch of medical science. Comparatively few eminent men in our profession have devoted their best energies to the investigations of the diseases of the ear and their therapeutics; consequently few satisfactory and reliable works have ever been written on these subjects, and of these few, with one or two exceptions, those of recent date, alone, are of especial value. It must be admitted that these last are, in many respects, imperfect, and that any valuable addition to their number should be favorably received by the profession.

The work of Mr. Toynbee is undoubtedly, upon the whole, the most valuable production of the kind in any language. The author has long been known by his numerous monographs upon subjects connected with diseases of the ear, and is now regarded as the highest authority on most points in his department of science. Probably no one in England, or on the continent of Europe, has accomplished so much in the pathological anatomy of the ear, as Mr. Toynbee. Mr. Wilde, of Dublin, so well known as the author of one of our latest and best works on Diseases of the Ear, says of him, that "his labors and investigations have effected more for aural pathology than those of all his predecessors, either in Eng-

land or on the continent. Accustomed to habits of minute dissection, patient research, and careful observation, he has accumulated a mass of facts upon the morbid anatomy of the organs of hearing, that must lay the foundation for a more rational mode of treating the diseases of those parts, than has hitherto been resorted to." It is to be hoped "he will long continue to prosecute, with the same avidity, the same honesty of purpose, and an equal amount of critical acumen, his valuable researches."

After twenty years of patient labor, devoted to careful study, to an extensive hospital and private practice, and to the minute dissection of *two thousand* ears, he has produced a work which cannot fail to add to his reputation and extend the knowledge of diseases of the ear in the profession.

The first chapter is devoted principally to a consideration of the "Mode of Investigating the Diseases of the Ear," and the "Method of Dissecting the Ear."

The second chapter contains observations upon the anatomy, uses, and diseases, of the external ear, (auricle,) and although not without interest is perhaps of less practical importance than other portions of the work.

The six following chapters are devoted to the anatomy, pathology, and treatment of diseases of the external meatus. Inasmuch as these affections are quite common, and often lead to unfortunate consequences, their diagnosis and treatment should be carefully studied by every physician. Yet too many of our profession betray great ignorance, or, rather, carelessness, in their management of such diseases. Instances are not unfrequent where physicians have treated diseases of the external meatus without even an examination. We have known several cases, where, without an examination of the ear, attempts have been made, by blistering and leeching, to relieve pain and deafness caused by the presence of impacted cerumen. Everything of this kind is wrong, and is certain to bring discredit, not only upon the surgeon individually, but upon the profession at large. It as an excellent rule, applicable in all cases of aural as well as of general

practice, never to treat a patient without a thorough examination of the organ affected.

Facility in conducting an accurate examination of the ear, and in recognizing its abnormal conditions, is only acquired by long-continued practice. It is of the utmost importance to have a clear idea of the normal appearance of the external meatus, and to be able to distinguish individual peculiarities, *resembling* the effects of disease, from abnormal conditions. This can only be accomplished by the careful inspection of the ears of a large number of healthy individuals.

A good view of the lining membrane of the external meatus, and of the membrana tympani, can often be obtained by simply pulling the upper portion of the auricle upwards and backwards, and allowing the rays of the sun to fall directly into the ear. Usually, however, the assistance of the speculum is required. The instrument adopted by Mr. Toynbee is a modification of the ordinary conical tube introduced by Gruber and Wilde. The portion which enters the meatus is of the same circumference throughout, but oval, like a flattened cylinder, corresponding to the oval shape of the outer meatus. "In order to hold the speculum more firmly, it is desirable that the expanded portion should be somewhat flattened; and this flattening should be at right angles with that of the small extremity."

The "forceps speculum" is much less convenient than the instrument just described, especially in cases of operation, and is now little used. When we consider the structure of the osseous portion of the meatus, it will be at once apparent that nothing can be accomplished by attempting to dilate it, by means of the "valvular speculum."

The practitioner will find great convenience, when the sun is not in a favorable position for an examination in having a mirror so adjusted outside his office window as to reflect the sun's rays horizontally into the ear of a patient, sitting in any part of the room. Although the direct rays of the sun are always preferable, it is sometimes necessary, when the sun is obscured, to employ artificial light. A good view of the cavity of the external meatus can be obtained by throwing

the light of a good lamp or gas burner through the speculum into the ear by means of a concave reflector, having a small opening in the center, through which the surgeon can look. Specula with magnifying lenses are sometimes employed with advantage.

It should be remembered, in every case where there is a discharge from the meatus, that the ear should be gently syringed, and carefully dried by means of a small tuft of cotton, before a satisfactory examination can be made. With these precautions the surgeon can detect the presence of any disease peculiar to the meatus.

In treating of the diseases of the external meatus, the author furnishes the student with important practical information on the following subjects; foreign bodies and accumulations of cerumen in the meatus and their removal; acute and chronic inflammation with or without discharge and caries of bone; polypi; osseous and molluscous tumors.

The subject of the next three chapters is the Membrana tympani—its structure and functions; the inflammations of its layers; perforation from ulceration and injury; and the use of artificial membrana tympani.

A tabular view is given of the abnormal condition of the membrane in dissections of 1013 diseased ears. The membrana tympani is an important portion of the organ. Its diseases, analogous, in many respects, to those of the cornea, are somewhat grave as regards the sense of hearing. Extensive perforation is almost uniformly attended, to a greater or less extent, with obstinate discharge and difficulty of hearing. These affections, therefore, are of great importance, and should receive the careful attention of all who attempt to treat them.

A single chapter—one, however, of great interest—is devoted to the physiology and pathology of the eustachian tube. In examining the ear with reference to the diseases of this canal, several facts should be born in mind; that the faucial extremity of the tube is closed except during the act of deglutition; that deglution opens this orifice by the contraction of the tensor and levator muscles of the palate, which take their origin from the soft tissues around it; that either

deglutition or a forced expiration with the mouth and nostrils closed, sends a small quantity of air through the tube into the cavity of the tympanum, producing a slight projection of the membrane tympani outward; this is normally attended by a faint crackling sound, which can be distinctly heard by the surgeon, by placing in his ear one end of a flexible tube, (otoscope,) the other end being inserted in the ear of the patient.

The author describes, with great clearness, the symptoms and appearances by which we may be able, in many instances, to decide whether obstructions of the tube exist at its faucial or at its tympanic extremity. With a careful examination of these symptoms and appearances, he is disposed to consider the *Eustachian catheter as entirely useless* in diagnosis, but sometimes advantageous in treatment.

It appears in a table found in this chapter, that in 1523 dissections, only 29 cases were found with diseased condition of the tube.

"The cavity of the Tympanum" is the subject of the next two chapters, which are also sub-divided into sections, upon: The Anatomy and Pathology of the parts within the Cavity; Diseases of its mucous membranes, with or without ulceration and affections of the Portio Dura Nerve, bone and brain; Anchylosis of the ossicles; Formation of membranous bands of adhesion. To illustrate the history of these various forms of disease and their treatment, several interesting cases are reported, which are followed by a discription of numerous experiments showing the physiological action of the ossicles in conveying sonorous undulations to the auditory nerve. A remarkable and valuable table is also given, exhibiting the pathological changes, which were found in 1015 dissections of this portion of the ear; among which are 151 cases with abnormal products in the cavity; 365 with morbid affections of the mucous membrane; 202 with false membranous bands uniting different portions of the Tympanum; 30 with abnormal condition of the malleus, 189 of the stapes and 31 of the incus. Accurate diagnosis of these affections during life, as also their successful treatment, must of course very often be

found impossible. And yet the author shows that in some of these diseases, however obscure they may at first appear, the experienced surgeon may learn enough from the symptoms and history of the case to form a correct diagnosis.

A single chapter is devoted to the diseases of the Mastoid cells. It contains much valuable knowledge regarding these diseases, particularly those of an inflammatory nature, which are liable to terminate in ulceration of the mucous membrane, necrosis of the bone and affections of the coverings and substance of the brain. The author expresses his opinion regarding discharges from the ear in reference to life insurance. He says: "No doubt a discharge from the ear should always be regarded with suspicion; an opinion which is borne out by an inspection of the following table (which is given) showing the relation between the duration of the discharge and the acute symptoms," which very often terminate fatally. We would call especial attention to the importance of healing diseases with discharges from the ear as speedily as possible. This is contrary to the popular idea and to the opinion of too many physicians and surgeons. Careful study of the works of Mr. Toynbee and Mr. Wilde will convince any one that a continuation of the discharge is sometimes not without danger to life. "*So long as otorrhoea is present, we can never tell how, when or where it will end, or what it may lead to.*" It is certainly loathsome to the patient and his friends and destructive to the sense of hearing.

The 15th and 16th chapters are devoted to "The Diseases of the Nervous Apparatus" and to "Nervous Deafness." The chapters are filled almost entirely with the history of cases, although in the majority of instances, diseases of this kind, like amaurosis is not benefited by treatment, yet great care should always be exercised in the examination of a patient, since nervous deafness is not unfrequently produced by indigestion, mental and physical fatigue and excitement and by dibility, fever and hemorrhage. Suitable treatment adapted to these several conditions of the system will semetimes relieve the local disarrangement of the auditory nerve.

The remaining chapters on "Malignant Diseases of the

Ear," "The Deaf and Dumb" and "Ear Trumpets and their uses," are interesting and worthy of a careful perusal. An appendix is added containing a "list of published papers on the structure, functions and diseases of the Ear," with references to the journals in which they can be found.

Mr. Toynbee's work as we have already said is undoubtedly the most reliable guide for the study of the disease of the ear in any language, and should be in the library of every physician.

"The volume will be found thoroughly illustrated with a large number of original wood engravings, elucidating the pathology of the organs of hearing, instruments, operations, &c., and in every respect, will be one of the handsomest specimens of mechanical execution issued from the American press."

We must say, however, that some of the engravings are very imperfect and almost entirely fail to assist the reader in forming an adequate idea of the specimen illustrated. Any one who has studied the works of Dalrymple, Jaeger and Sichel on Diseases of the Eye, and examined the numerous anatomical and pathological plates, so remarkable for beauty of drawing and delicacy of coloring, cannot but regret that Mr. Toynbee had not endeavored to furnish colored illustrations of a high artistic character, exhibiting the appearance of every part of the ear in health and disease. They would have been an invaluable addition to his work. E. L. H.

☞ We have received the following announcement of the advent of a new medical book:

The Medical Uses of Electricity in the Treatment of Nervous Affections.—A new and important medical work, issued by Messrs. Ticknor & Fields. It is a thoroughly systematic work, of over 700 pages, and finely illustrated with over 100 cuts, showing not only the best methods for the therapeutical employment of electricity in the various nervous diseases, but also showing the anatomy of the parts, (nerve-trunks and muscular fibres,) liable to be involved; moreover

presenting a concise view and means of diagnosis of the great variety of nervous affections met with in every-day practice. This work is from the pen of Alfred C. Garratt, M. D., of Boston, who, of late years, has made this difficult department of medicine his speciality. It is addressed to medical students, and is dedicated to Dr. John Homans, President of the Massachusetts Medical Society.

PERCY ON REDUCTION OF DISLOCATION OF THE HIP BY MANIPULATION.

Prof. Hamilton, in his recent work on fractures cites a number of authorities going to prove the use of this method of treating dislocation of the hip, at various periods, and in different countries. He seems to have overlooked so high an authority as Baron Percy, who, about the year 1793, (year 3d of the French Republic,) in reply to what were called "*Questions Epuratoirs*," purifying questions, proposed by the "*Commission de Sante*," to all the army and hospital surgeons, to test their capacity and qualifications for the situations which they they occupied respectively. Percy, was, at the time, surgeon-in-chief of the army of the Moselle, but was obliged, like the rest, to bow to the dreaded power of the Convention. The *Responses du Citoyen Percy* are found in the appendix to his work, entitled, *Pyrotechnie Chirurgical Practique*, or the art of applying fire in surgery.

"The reign of lacqs, blocks, and machines, is past, for good surgery. These violent means restrain the action of the muscles too much; prevent them from relaxing at the proper time, when it is only necessary to direct the bone towards its cavity; lay out upon them unequal forces; expose them as well as well as the ligament to fatal tearing. They take away from the operator the power of giving to the forces that extensive change of direction which the particular position of the luxated bone may require," etc., p. 19.

"The practice of the ancients was rarely sufficient to reduce

luxations of the thigh. The extensions, which were excessive, might well draw the head of the femur near it cavity but this is not enough." "It is impossible to replace it if the thigh is not free from all restraint. Thus the operators who lengthen the member with cords, pullies, etc., must often fail." p. 22.

"It is certain, at the present day, that but very little force is required to reduce a dislocation of the hip and that in no case ought lacqs and machines to be resorted to. The method of proceeding is as follows: The patient being laid upon the back, carry the dislocated member inward and place it beside the sound one. An aid supports the knee which in this luxation is always flexed, and extends it, which puts the muscles in a state of parallelism calculated to produce a full extension of all and thus prevent resistance. The operator then seizes the foot with the two hands placed one above and the other below, without raising it; he draws it toward him in a direct line, gently at first so as to make the muscles yield more easily, afterward more strongly so as to bring the head of the bone opposite its natural place; he then gives it some lateral movements which complete the reduction. p. 22.

THE AMERICAN MEDICAL ASSOCIATION.

The Thirteenth Annual Convocation of this body took place on the 5th of June, at New Haven, Connecticut. The well-known attractions of the beautiful City of Elms drew together a large number of the members of the profession. The citizens of New Haven entertained their guests in a most genial and hospitable manner, and made it an occasion long to be remembered with pleasure by all who participated in its enjoyments.

The great majority of the delegates were from New England and New York, the Southern and Northwestern States being but lightly represented.

Dr. Eli Ives, of New Haven, was elected President for the

ensuing year; a compliment both to himself and to the city of his residence, eminently merited.

The Vice Presidents are Drs. Wilson Jewell, of Pa.; A. B. Palmer, of Mich.; Joseph P. Logan, of Georgia; John B. McDowell, of Mo.

Treasurer—Dr. Casper Wistar, of Pa.

Secretaries—Drs. S. G. Hubbard, of Ct.; H. A. Johnson, of Ill.

Committee of Arrangements—Drs. N. S. Davis, J. W. Freer, De Laskie Miller, E. Andrews, H. W. Jones, Thomas Bevan, and J. W. Bloodgood, all of Chicago.

On Prize Essays—Drs. Daniel Brainard, Ill.; M. L. Seaton, Mo.; D. S. McGugin, Iowa; John Evans. Ill.; A. G. McArthur, Ill.

On Publication—Drs. F. G. Smith, Pa.; S. G. Hubbard, Ct.; E. D. Hartshorn, Pa.; Caspar Wistar, Pa.; R. J. Breckenridge, Ky.; H. F. Asken, Del.

The Association adjourned to meet in Chicago on the first Tuesday in June, 1861.

The Convention of Medical Teachers met the day before the Association, in accordance with their adjournment at Louisville, Ky. The representation of Medical Schools was not very general, and they did not recommend changes of any importance in the plan of medical instruction heretofore followed.

☞ In the April number of the *Journal*, we published, as original, an article under the caption of "Physiological Incest," which appeared also the same month as an original communication to the *Louisville Monthly Medical News*, and in the May number of the *Charleston Medical Journal and Review*. We knew nothing, at the time, of the author of the article, and the sole merit of the paper—its brevity—coupled with a degree of inadvertancy on our part, gave it a place in the pages of the *Journal*. The simultaneous furnishing of

the same article to different medical publications, is not recognized as honorable by any journalists, and can only be looked upon as a disreputable expedient to bring the author's name before the public; and consequently we were prepared and gratified to learn that the writer was not a recognized member of the medical profession being only one of the legion of pretenders that hover about it, as the mercenary camp followers do about an army, for purposes of plunder. We do not feel ourselves in any way censurable for the occurrence, yet we deem this explanation proper to be made.

OBITUARY.

Died, at Louisville, Ky., June 6, Mr. Orange Saylor, of Rheumatic Carditis.

Mr. Saylor was a student of medicine, and attended the last session of Rush Medical College. He had been for many years a sufferer from rheumatism, which resulted in hypertrophy of the heart. Last winter, while engaged as prosector to the Professor of Anatomy, he was severely attacked with his old disease, disabling him entirely from his duties. He had several renewals of the attack through the spring, and had started south in hopes a milder climate might relax the grasp of the fell torturer. He reached Memphis, where he found himself so severely affected he could go no farther, started to return, got as far as Louisville, where he breathed his last.

It will be with many and sincere regrets that this notice will be read by his classmates and friends. He was a young man of quick perception, great energy and industry, and by his generous frankness and manly bearing endeared himself to both teacher and student.

He was most enthusiastically attached to his adopted profession, and we feel that his progress last winter gave earnest of a pre-eminent professional career.

☞ That excellent publication, the *New York Journal of Medicine*, after having existed for seventeen years without change, has finally submitted to the law of mutation incident to all earthly things; and henceforth will be issued weekly, under the name of the *American Medical Times*. Each number will consist of 24 quarto pages, double columns, filled with such general and scientific matter as may be of interest to the profession.

ITEMS.

According to the census of 1859, there were 2,072 physicians in the State of Virginia.

The Legislature of Alabama have made an appropriation of Fifty Thousand Dollars to the Mobile Medical College.

Dr. Brown-Sequard is to deliver a course of lectures on paralysis and epilepsy, at the National Hospital for Epileptics, in London.

Walter V. Wheaton, the Senior Surgeon of the U. S. Army, recently died in Philadelphia, aged 73. He was appointed Hospital Surgeon 1813.

The National Convention for Revising the Pharmacopœia of the United States, held its fifth decennial meeting in the city of Washington, on the 2d of May, 1860.

The Professional friends of Dr. Geo. B. Wood, gave him a complimentary dinner at the Academy of Music on the 16th of May. Dr. W. designs soon to go abroad, to remain for some time.

The Chair of Theory and Practice of Medicine, in the the University of Pennsylvania, made vacant by the resignation of Prof. Geo. B. Wood, has been filled by the election of Dr. William Pepper.

Some Southern periodicals claim that the tea plant flourishes well, in the climate of Louisiana, enduring equally well the hotest days of summer and the frosts of autumn.

The Legislature of Massachusetts has been convened to take such action as is thought most effectual to prevent the extension of the disease among cattle that is prevailing in that State. The opinion seems to be held, that the malady spreads only by contagion.

Miscellaneous.

MANIA A POTU.

BY WARREN STONE, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISIANA.

This term is often applied to all the forms of delirium that are caused by the excessive use of stimulants, but it more properly belongs to the acute form, where the violence of the delirium, or mania, is mainly due to alcoholic blood-poison. The term delirium tremens is more appropriate to the more chronic form, where the delirium and tremor are due to the sudden privation of a long-accustomed stimulant. It is the former that I think is generally improperly treated, and is so often the cause of sudden and premature death. Brain fever and apoplexy are terms often kindly substituted, as being more respectable; but names do not alter facts. Mania a potu usually occurs with the robust who habitually use alcoholic stimulants, but not to any great excess, except upon occasions, and when they are carried to a certain extent, a necessity for their continuance is created, and their excessive use cannot, or will not, be resisted until the stomach gives way and finally rejects them. During this process the mucous membrane becomes engorged, the digestion, and finally the

appetite, entirely fail, and the patient is sustained for some days after by stimulants alone, until furious delirium sets in.

This madness is not due to the stoppage of an accustomed stimulant, for it often sets in while the subject is in the full use of it, but it is plainly due to alcoholic poison and the absence of proper nutritive matter in the blood. I think I may add another cause, which has often something to do in causing the delirium, and certainly much to do in causing death, under some modes of treatment, and that is suppressed excretions. So long as the stomach is intact, and the appetite and digestion are good, an immense quantity of stimulant may be disposed of without serious immediate consequences; but when the organs finally, from constant excitation, become engorged, nutrition ceases, and the alcohol is retained more in the blood, instead of being carried off by excretions, and a wild delirium soon follows.

It is plain, under these circumstances, that the indications are to establish the excretions, disgorge the system of the alcoholic poison, and to introduce proper nutriment. The first two are accomplished by one and the same means. The stomach is generally irritable; at least there is frequent vomiting; but it is owing to the accumulation in the stomach of morbid secretion, rather than from inflammation or even irritation; for calomel in small doses, frequently repeated, arrests it with great certainty. If the subject is governable, and will take medicine willingly, calomel should be given in two or three grain doses every hour, or oftener, if the case is urgent, until fifteen or twenty grains are given; but if medicine has to be given by force, it is best to give a full dose at once; and this is the better, for in the worst cases the stomach is often not nauseated, and the sedative effect of a large dose of calomel calms the nervous excitement, and at the same time produces the appropriate effect upon the excretory organs and mucous coat of the stomach and bowels. It requires some hours for this effect to be produced, and it is improper to give anything to promote its action upon the bowels under ten or twelve hours, and I think even a longer time would be better, if the case is not urgent. Small and frequently repeated doses of saline medicine are the best after the calomel (sulphate of magnesia is best), which promotes the excretions, disgorges the stomach and bowels, and clears the system of its alcoholic poison, to its great relief. An active cathartic may afford some relief, but the system is not so well disgorged by it; more or less serum from the blood is carried off, causing weakness; while, in the other process, by giving time for the

action of the calomel, and then promoting it by gentle but continued means, the organs exercise a selection in excreting, and thereby a large amount of effete matter is discharged, and the patient feels the stronger for it, being freed from an incubus that was weighing it down, and producing apparent exhaustion. After this process we should lose no time in introducing nutriment, and for this purpose milk is almost universally applicable; and as the mucous membrane of the stomach seems to be denuded of its epithelium, the addition of lime-water renders it particularly grateful and soothing. Patients in this condition generally loathe animal substances, but milk is almost always grateful to the taste, and is particularly appropriate, for it furnishes the most innocent solid for the bowels, that have been long deprived of their wholesome stimulus. If that a patient could not take milk, well-boiled corn-meal gruel is the next best diet, most likely to be relished; and for something more substantial, strong, well-seasoned broth, frozen, will be the most likely to agree.

In all acute cases, alcoholic stimulants should be withheld, for they act like a poison, and will often bring back the delirium. Should stimulants be thought necessary, (and it is not often really necessary,) the carbonate of ammonia, or the aromatic spirits of ammonia, are preferable; or it may be proper, in some cases, to allow malt liquor. Opium, in all forms, should be prohibited, until the system is relieved thoroughly of its alcohol, and even then I find that it can generally be omitted; and when it can be the patient recovers sooner and better. The patient is not expected to sleep well, but if the blood is renewed by its appropriate nutriment, natural sleep will soon follow.

Occasionally, when, previous to the debauch which immediately caused the mania, a free use of stimulants had been indulged in for some time, we have an exalted state of the nervous system, attended with hallucinations and sleeplessness, which require special attention. Potent stimulants operate badly, and opium alone does not operate well, though in large doses sleep may be forced, though not without some risk, in some cases, to the brain; but equal parts of morphia and tart. antimony, given in small and repeated doses, will soon calm the nervous system and induce sleep, without injury either to the brain or stomach. There is nothing that cools off the heated imagination in these cases like nauseating doses of tart. antimony, and opium in some form may be added, if it is thought necessary. The too general opinion that sleep is the all-important thing in this disease, has led to fatal errors in

treatment. Opium, given freely, as it often and very generally is, while the blood is charged with alcohol, produces an unfavorable effect upon the nervous system, and tends to check the excretions, which are already diminished, and the patient, without being narcotised, often goes into a stupid state resembling the effects of uremic poison; and if about one-half (about the usual proportion), by the vigor of their constitutions, weather it in spite of all poisons imposed upon them, they recover slowly, and their organs are left in a bad condition.

I have no record of cases, but within the last ten years a large number have been treated at my Infirmary, by the different house surgeons, under my general directions, and I do not recollect of a single death, unless there was some grave complication more important. In delirium tremens, where it may be proper to keep up the accustomed stimulant to a certain extent, it is generally necessary to attend to the nourishment; for it will be found that the nutritive process is defective and the stimulant will afford but temporary relief, unless this function is restored; or, if it is persisted in without, it will produce the more acute form of mania.

With this view, calomel and other medicine proper to disgorge the stomach and digestive organs, may be proper, and special attention to diet. As in the different forms of other diseases, these two approximate each other in character, and require, in treatment, corresponding modifications. In my early experience in the Charity Hospital, I adopted the opium treatment, and it was not by a sudden change to the opposite extreme, that I arrived at my present mode of treatment, but by degrees, as the true nature of the disease became apparent, and the frequent ill-effects of opium warned me of my error.

In the effect of calomel and salines in this disease, in disgorging the abdominal viscera, and particularly in relieving the stomach, when subject to morbid secretions; and in the effect of tart. antimony and morphia, in subduing morbid sensibility of the nervous system, we discover a therapeutic law that may be usefully applied to other diseases. In engorgements and effusions resulting from obstructed circulation, particularly from the heart, this method is admirably adapted. From the venous engorgement, the functions of digestion and assimilation are almost suspended, the blood becomes impoverished, the skin becomes of a bronze color, and palpitation and other nervous symptoms result in a great measure from it. The dropsical effusion in these cases is generally looked upon as the chief feature of the disease, or

consequence of the heart disease, and active hydragogues and diuretics are usually resorted to, when, in reality, if we disgorge the organs and establish nutrition, the watery effusion will disappear without trouble. In some cases it takes a large amount of calomel to produce the effect, but it is sure, if persisted in. When I say a large amount, I mean fifty or sixty grains, in small doses, such as will not derange the stomach. When the effect has once been produced, it can easily be kept up, and at the same time the stomach be left free to take the much-needed nutriment. The calomel may be given at night, and early in the morning the appropriate saline or hydragogue, and in two or three hours after the patient will digest better than before, by reason of the improved circulation of the digestive organs. In this way the disgorging process can be kept up, and at the same time the impoverished blood renewed.

In many painful nervous affections, the antimony and morphia are very appropriate, and afford the desired relief with much less injury to the system than by opium or any anodyne alone. In nervous or spasmodic colic, where the patient often suffers excrutiating pain, this combination, if given early, before organic changes take place, not only gives ease very promptly, but relaxes the organs and prepares them for the action of purgatives, if they should be thought necessary. I have given the antimony, combined with Battley's sedative, in low typhoid or nervous fever, when attended with occasional violent neuralgic pains in the head or elsewhere, with the happiest effect, when the sedative, taken alone in a sufficient dose to relieve the pain, produced bad effects. In exalted states of the nervous system and nervous delirium generally, when interference is thought necessary, it is highly useful.—*N. O. Med and Surg. Jour.*

HYPOPHOSPHITES OF SODA AND OF LIME IN THE TREATMENT OF PHTHISIS.

BY RICHARD QUAIN, M. D.

The treatment of phthisis by the hypophosphites of soda and of lime, was brought into notice by Dr. J. Francis Churchill, of Paris, in a communication read before the French Academy of Medicine, in July, 1857. I was at that

time induced, by the representations made as to the value of these agents, to administer them to some of the cases under my care, in the Hospital for Consumption, at Brompton; but as the results were not encouraging, and as the drugs were then obtainable in limited quantities, I did not continue the experiments. One of my colleagues, Dr. Cotton, about the same time, or soon after, made some observations on the subject, and and published the results, which were unsatisfactory.

Dr. Churchill subsequently brought his memoir, with additions, before the profession. A perusal of this treatise,* and inquiries addressed to me from time to time by professional friends, as to my opinion of the value of the hypophosphites in the treatment of phthisis, have led me to re-examine fully into their asserted efficacy, and in this communication I propose to give, briefly the results of the inquiry.

It will, perhaps, be fair to say, in the first instance, that Dr. Churchill states that he was led to adopt the use of the hypophosphites in consequence of his belief that the tuberculous diathesis depended on some disturbance in the process of sanguification; that this disturbance, which affected the inorganic and not the organic elements, was due to a deficiency and not to an excess of some one or other of these elements. He argued with himself, that it could not be the sulphur, the iron, the chlorides, or the alkalies, for these substances were daily used as remedies, without any real effect on the disease. Eliminating, then, the elements first-named, he concluded that the failure was in phosphorus, as a constituent of the body.

It should here be noticed that these propositions of the author can only be regarded as theortical speculations, inasmuch as they are unsupported by either chemical or physiological observations.

By a similar course of reasoning, but one more in accordance with physiological facts, Dr. Churchill arrived at the conclusion, that phosphorus, the missing element, could be best supplied by the administration of this body in its lowest state of oxidation, as it was thereby given in a form more capable of assimilation. With that view, he adminstered the hypophosphites of soda and of lime, which he declared to be prophylactic, and to be curative in every stage of the disease. He says: "I *know* that they will prove, not only as sure a remedy in consumption as quinine is in an intermittent

* De la Cause Immediate et du Traitement Specifique de la Phthisic Pulmonaire. Par J. F. Churchill, D. M. P. Paris: Masson.

fever, but also as effectual a preservative as vaccination in small-pox."

Encouraged by statements like this, and by a lengthened catalogue of the phenomena of improved health which it was said resulted from the use of these remedies in Dr. Churchill's hands, I determined on giving them a fair trial in a certain number of cases. They were therefore administered in twenty-two cases, taken without selection from among the ordinary in-patients of the Brompton Hospital. Of this number (twenty-two) twelve were males and ten were females.

The Stage of the Disease.—Two cases were in the first, ten in the second, and ten in the third stage of phthisis.

The Dose of the Remedy.—Dr. Churchill recommends ten to thirty grains as the dose, of either the hypophosphite of soda or of lime, daily, in any simple fluid. The dose to be increased, until the general symptoms disappear. In some cases he prefers the one salt to the other. For example, he thinks that the salt of lime checks the expectoration, and increases the cough; whilst the salt of soda is less energetic in its action. I met with nothing confirmatory of this impression. The dose given to the patients at Brompton was, in the first instance, ten grains, three times a day, except in the case of a child, when only five were given. The disease progressing, or being stationary, or the effects of the remedy being *nil*, the dose was gradually increased. Thus, in four cases, it was increased to a drachm three times a day; in ten cases, the dose reached two scruples or more; in eight the dose remained under half a drachm. It will thus be seen that the remedy was given freely. In no case, let me add, was there any appearance of the troublesome symptoms indicated by Dr. Churchill as following large doses.

The Duration of the Treatment.—One case was under treatment for six months, one for four months, six for three months, nine for two months, five for one month. During this lengthened course of treatment, I looked anxiously, but in vain, for those marked physiological effects described by Dr. Churchill. There were no evidences of the "improved powers of innervation;" "the hair and nails did not grow more rapidly; there was no "appearance of plethora or of fulness;" the patients did not describe "an unaccustomed sensation of feeling better and stronger after a few doses of the remedy." Nay, I would say that there was nothing more felt by the patient nor noticeable by the physician than if so many grains of carbonate of soda or prepared chalk had been taken.

The Results.—To return, then, to the more immediate object for which these agents were administered, viz: to ascertain their value in the cure of consumption; I have to state, that of the twenty-two cases, six were more or less improved while under treatment. Of these six, three were improved in but a slight degree, and only for a short time; in three the improvement was marked, but in one only of the latter has the improvement been permanent; of the two other cases, one continued using the hypophosphates for three months after leaving the hospital, during which time she grew gradually weaker, and finally died; the other, a man, after leaving the hospital, continued the treatment for some time, but gradually grew worse, and is now dying. All the other sixteen cases steadily lost ground whilst using the hypophosphites in the hospital. Happily in six of these cases, the treatment by hypophosphite was suspended, and the usual treatment by cod-liver oil, tonics, &c., being substituted, a decided improvement in each was the result.

Conclusions.—Reviewing the cases of which the preceding may be said to be types, we see that of twenty-two individuals laboring under phthisis, submitted to the hypophosphite treatment, sixteen derived no benefit whatever; in three the benefit was so slight and temporary as scarcely to deserve notice; in two the improvement, though marked, was temporary; and in one case the result has been satisfactory and permanent. Small as the therapeutical powers of the hypophosphites are shown to be by these facts, are we justified in assigning to them even thus much? I think not. For we cannot forget that our cases are hospital cases; that, oppressed by sickness, care, and anxiety, they come from close, unhealthy localities; that they were, more or less, destitute of good food and good air. When they enter the hospital they begin to feel the influence of hope; they live in warm, airy, and well-ventilated wards, find agreeable occupations, and have plenty of good food. Under such circumstances, the patients frequently improve in health, without the application of any medicinal agents. It would therefore be as fair to attribute the slight or temporary improvement which took place in some of these cases to hygienic as to therapeutical agencies. Nay, further; this opinion is confirmed by the fact that two of the three cases which did best in the hospital ceased to do well when they left it.

Desirous of otherwise testing the value of these substances, I thought it would be well to compare the results of my ordinary hospital practice with that of the hypophosphite treatment.

With this view, I requested my friend and late clinical assistant, Dr. Hill, (to whom I am indebted for much assistance in this inquiry, and for the notes of the preceding cases), to make abstracts of any 22 sucessive cases in the hospital books. He did so, and having ascertained the results of the treatment in these cases, I find that he has given me notes of 11 males and 11 females, of whom 3 were in the first stages of the disease, 5 were in the second, and 14 in the third. It will be remembered that 12 were in the first and second stage, and 10 in the third. Thus in the former cases, the advantage was in favor of the hypophosphite cases, so far as the stages of the disease were concerned; nevertheless we find that of the cases submitted to other treatment, 16 were more or less materially or permanently benefited, whilst in 6 only did the disease progress unfavorably. Exactly the converse was the case when the hypophosphites were given. Thus there were 16 of 22 cases unrelieved. This comparative evidence is further strengthened by bearing in mind that 6 of the cases in the former series, which were unrelieved by hypophosphite treatment, did well subsequently under other treatment.

A review of the preceding facts has led me to form a most unfavorable opinion of the value of hypophosphites in the treatment of phthisis. I believe them to be comparatively, if not absolutely useless. I have been induced to take some little pains in investigating the subject, because of the unhesitating confidence with which their value is asserted and their use recommended in certain quarters, and I have also seen in the cases of some patients who have visited Paris how much time has been thrown away by substituting the use of these salts for remedies of undoubted efficacy in controlling the progress of phthisis.—*London Lancet.*

From the Transactions of the Harveian Society.

MR. WEEDEN COOKE, ON THE TREATMENT OF GONORRHŒA AND GLEET WITHOUT COPAIBA.

After referring to Sir Astley Cooper's method of treating gonorrhœa, the author stated his belief that he was only giving utterance to a largely-acknowledged experience when he ventured to affirm that copaiba, in the treatment of gonorrhœa was not only unnecessary, but that it was, in a great many instances, injurious, and that in all it was offensive to the last

degree. During the last fifteen years, at least 6000 cases of gonorrhœa had come under the author's care at the Royal Free Hospital, and he had availed himself of these large opportunities to test all the methods of treatment which had been suggested, in order to arrive at the safest, quickest, most efficacious, and least disagreeable mode of curing the disease. As introductory to the subject of treatment, Mr. Cooke discussed the subject of the cause of chordee, the reason for the scalding of the urine, the distinction between the true and spurious gonorrhœa, and the time when infection may or may not be apprehended. The conclusions he arrived at were—

1st. That chordee, in ninety-nine cases out of a hundred, was due to spasm, and not to effusion of lymph; and that cubebs, acting as an antispasmodic formed the most efficacious remedy for this symptom.

2ndly. That the scalding was the result of the acid urine passing over the highly inflamed mucous surface of the urethra; and that this was to be remedied by the administration of the alkaline carbonates for the purpose of neutralizing the acidity of the urine, thus removing the principal cause of the continuance of the inflammation.

3d. That in all disputed cases, the true gonorrhœa may be known from the spurious by the presence of redness, heat, pain, and swelling, together with a purulent discharge, more or less green and offensive; whilst a discharge produced by connection with a person who has leucorrhœa, or has recently been confined, will not be accompanied by these inflammatory signs, and the discharge will be milky in consistence and color, differing much from the thick, purulent discharge of the veritable gonorrhœa.

4th. The time when infection may or may not be apprehended, was discussed in its incubative stage, and at its close. A case was given, showing that the disease may be caught from one person, and not communicated to another two nights after, because the purulent discharge had not commenced at the time of second intercourse. Respecting infection at the close of the disease, the author had been enabled, from experience, to establish, as a law for his own guidance, that gleet; i. e., a mucous discharge from the urethra, consequent on gonorrhœa—does not set up gonorrhœa in another person; but that, whilst any pus is to be found in the discharge, there is probability of infection.

Passing on to the subject of treatment, Mr. Cooke said that, upon inquiry at the London Custom House, he found that 118,396 pounds of copaiba were admitted into the port of

London only, during the first ten months of the year 1859. If this be administered at the rate of half a drachm three times a day, and supposing each patient takes it for three weeks, we have here copaiba enough to treat 473,584, or close upon half a million persons, and that in ten months, only, of the year. Considering how often it fails to cure the disease; how frequently it is rejected by, or, at any rate, disorders the stomach; how tell-tale and disagreeable is its odor from the mouth and skin; how occasionally it produces a papular eruption all over the body; and that, in many instances, swelled testicle and stricture may be traced to its irritating influence, while gonorrhœa, rheumatism, and ophthalmia, have been attributed to its administration: "considering all these objections," the author remarked, "is it not extraordinary that this disgusting medicine continues so long to hold its ground?" The abortive treatment by strong injections of nitrate of silver had proved a failure, because in some instances inflammation of the bladder had resulted. The treatment by diluents was slow in its action, and not readily employed by persons engaged in active business. That by diuretics was scarcely more successful, whilst the administration of saline aperients was generally attended with an aggravation of the ardor urinæ as well as chordee. The treatment which had been most successful in the author's experience was the chemical treatment by the alkaline carbonates, given with a view of neutralizing the acid in the urine. Thus one great source of irritation was removed from the inflamed urethra, and the subsidence of the inflammation, which nature would effect, was allowed to take place. As auxilliaries, especially where there is œdema of the prepuce, lead lotions, and elevation of the penis against the abdomen, were commended. The inflammation having subsided, and a muco-purulent discharge being left, the author had found, after giving trial to all the injections which have been at any time in vogue, that the chloride of zinc, introduced into this branch of practice by Mr. Lloyd, of St. Bartholomew's, was the most efficacious of any in curing the disease, and that with less discomfort and in a much shorter time than by any other means. Since employing this treatment, he had had little, if any, orchitis amongst his patients. The strength of the injection he most commonly employed, was two grains to the ounce, but in some instances one grain to the ounce was sufficient. Whilst advocating this treatment in persons of healthy constitution, it was necessary to completely change it in others. In the strumous, in the dyspeptic, in those of dissipated

habits, and where the diseased person is an old offender, the alkaline carbonates are not called for, because either the urine is not acid or the inflammation does not run high. In such cases the tincture of iron or sulphuric acid and bark, or gentian, or calumba, may be advantageously employed from the commencement; and the chloride-of-zinc injection in these cases is also of the utmost value in rapidly overcoming the disease.

Respecting diet, the author considered that after the subsidence of the inflammatory symptoms, scarcely any restriction need be enforced, and that beer or wine in moderate quantities may be advantageously used by those who are accustomed to these beverages. He had found long-established cases of gleet yield readily to the chloride-of-zinc injection, accompanied with tonic treatment and generous living.

In conclusion he would rejoice if the treatment he had found so serviceable should be followed out by others, and thus assist in banishing altogether from surgical practice the use of so nauseous a drug as cobaiba.—*London Lancet.*

ON THE TREATMENT OF WHOOPING-COUGH BY DILUTED NITRIC ACID.

BY JOHN ATCHERLEY, M.R.C.S., ENG.

I wish to direct the attention of the profession to the diluted nitric acid in the treatment of whooping-cough. It has already been employed in whooping-cough to some extent, and was first recommended some years ago, by Dr. Arnold, of Montreal.

Having had abundant opportunities during the last two years, of testing its efficacy, I may be permitted to speak with some degree of confidence as to its value. I have confined myself exclusively to its use in every case I have had to treat throughout that period, and I can affirm as to the ordinary duration of whooping-cough has been computed to average ten weeks, in defiance of every method of treatment that had hitherto been adopted, the diluted nitric acid effects its removal in less than three weeks, except in cases where its course had been interrupted by some serious complications.

Any medicine capable of abridging the duration of a disease whose fatality is in proportion to its continuance, must be of

incalculable value. I am convinced that when it becomes more generally used, it will meet with the concurrence of the profession, and will hold a high place, and be the cardinal remedy, if not supercede all other medicines in whooping cough.

In prescribing the diluted nitric acid, I usually begin with five minim doses every three hours, say for a child six months old, and gradually increase the dose, in proportion to the age, to fifteen minims every second hour, should the paroxysms become aggravated, or of more frequent recurrence. When the intervals become lengthened, which generally happens after the second day, the medicine may be given less frequently; but it is of importance that the acid should be continued ten days after all symptoms of the disease have subsided. From the neglect of this precaution, I have seen the cough return with all its former violence when the medicine has been abruptly discontinued; therefore, it should be given in moderate doses, three times a day, after all traces of the affection have passed away.

The form I generally use is the one originally suggested, viz: diluted nitric acid, compound tincture of cardamoms, syrup and water. This is always taken without the slightest reluctance, as it is agreeable to the taste—a great consideration in prescribing medicine for children, which requires to be continued for some length of time.

In conjunction with the above treatment, I have invariably employed a stimulating embrocation to the back and chest, night and morning, consisting of one ounce of camphor liniment, and two drachms of spirits turpentine.

Of course, it is necessary as in all diseases of the respiratory organs, that proper attention should be paid to the state of the bowels, regulation of temperature, clothing and diet. I have also seen great benefit derived from the inhalation of the fumes of burning nitre-paper; two pieces of about four inches square are burnt in the bed-room on retiring to rest, and one piece burnt occasionally in the room occupied by the child in the day-time, appears to shorten the paroxysm, and to deprive it in a great measure of its spasmodic character, rendering it more like the cough of ordinary catarrh. Chloroform is the best anti-spasmodic that can be used during the fit, but parents have a great dread of its effects, unless administered by the medical attendant; but from the apparent simplicity in the fumes of burning nitre-paper, they are readily induced to give it a trial.—*Med. Times and Gazette.*

M. VELPEAU'S REPORT ON COAL-TAR AS A DISINFECTANT.

The Academy of Sciences having appointed a committee composed of MM. Cheveul, Cloquet, and Velpeau, to consider the claims of MM. Corne and Demeaux's preparation of coal-tar and plaster as a disinfectant, an extensive series of compar ative trials between it and other substances was instituted at La Charite, and M. Velpeau has recently presented to the Academy an elaborate report on the results. The general conclusions are—1. That coal-tar mixed with plaster, disinfects putrefying organic matter. 2. In its therapeutical applications it has only realized a portion of its promises. As a disinfectant in the autopsy-rooms, (upon this point even in the hottest weather, M. Velpeau speaks in the strongest terms,) in the beds of the dirty patients, and wherever there are infected matters, its properties are indubitable. The same may be said of putrid and gangrenous discharges, fetid suppurations, sanious wounds, ichorous caverns, and hospital gangrene; but with respect to open wounds and ordinary ulcers, other topical preparations are preferable. 3. Employed with charpie, linen, ointments, cerates, or taken internally, it has furnished no useful result. 4. As an absorbent, especially used as a cataplasm, it acts very indifferently. It must be remembered that abnormal liquids, especially pus, are very different compounds to water; and plaster, which exerts great absorbing power on the latter, may imbibe but very little pus. Still, whether in powder or cataplasms, the compound may render some service, even as an absorbent, in fetid or putrid suppurations. To secure the good effects of the coal-tar and plaster, certain percautions must be taken, the neglect of which may probably explain the entire inefficacy this mixture has exhibited in the hands of some experimenters. It is fine modeling plaster, and not common plaster, which should be employed; and the coal-tar, or carburetted oils, in the proportion of from two to four per cent, triturated with it, should impart to it a grayish color, while leaving its dry and pulverulent quality. Anatomical parts, to be disinfected, should be rolled in this powder, so as to bring it in contact with all parts at their surfaces. Gangrenous or putrid sores, must be covered by thick layers, laid on in handfuls several times a day; and, in the case of blood, pus, dejections, etc., enough must be put on to form a kind of paste, replacing the layer of powder by a new one, when it no longer absorbs. Mixed with white oil into a thick state, it may be applied as a cataplasm.—*Med. Times.*

OUR CONFRERES OF THE JAPANESE EMBASSY.

An interesting interview occurred a few days since between Dr. Hills, Superintendent of the Columbus (O.) Lunatic Asylum, and the physicians to the Japanese Embassy. The following colloquy took place:

Dr. Hill—How many insane persons have you in Japan? Very few.

Have you separate hospitals for them? We have four hospitals in Jeddo for the sick, with separate wards for the insane.

Do you use force or violence in their management? We do not, but have strong rooms and guards.

Do you ever bleed insane patients? Never.

Are idiots and lunatics kept in the same hospitals? They are, but in different wards; we have but few; not more than twenty in all; there may be some in private hospitals.

How many sick do you average in your hospitals? From five to eight hundred, but all poor.

Here the Japanese doctors became interrogators, and inquired:

Have you many insane?

Dr. Hill—We have three hundred in my hospital.

How many of these are insane? All.

This reply astonished the inquisitors, who raised their hands and looked at each other.

What medicines do you use? Wines, quinine, and other stimulants.

Have you hospitals for the dumb and blind? Yes, but separate.

Have you medicinal gardens? None of importance.

The Japanese here remarked that they would like to get the seed of our plants of every description, for the imperial gardens of Jeddo, and they were informed these would be furnished them by the National Agricultural Society. They were also told that they would have an opportunity to inspect the Asylum for the Insane before leaving Washington, which appeared to gratify them very much.

☞ Dr. Letheby, of London sanitary reputation, condemns the scheme which has been adopted of deodorizing the river Thames with per-chloride of iron.

THE AURICLES OF THE HEART

ACT BY THEIR ELASTICITY AND CONTRACTILITY, NOT BY MUSCLES.

BY CHARLES SMITH, M. D., NEW ORLEANS.

To demonstrate this fact, we shall first expose the heart, and then follow the current of the blood.

Tie the pulmonary veins above the auricle; perforate the mitral valves of the ventricle, and inject through the aorta, and fill the left ventricle and auricle to their fullest capacity, and lay the preparation aside until perfectly dry; when the auricle will appear as transparent as glass, and the ventricle perfectly opaque.

This proof that the auricles have no muscles, or muscular fibres, ought to convince any one who has not committed himself upon the subject. I must confess that I have often admitted to my professor that I could see the muscular fibres in the auricles; nor could I contradict it, until I had lectured upon anatomy and physiology myself, and given the subject special attention.

We say, then, that the auricles act, upon the principle of *elasticity* and *contractility*, dependent upon the ventricles. During the action of contraction of the ventricles, the auricles are distended with blood, and continue so until the re-action of the ventricle, when the blood flows (upon the principle of the laws of fluids) into the ventricle, which again contracts, and propels it into the arteries.

We may simply say here, that, if muscular action were necessary for the purpose of emptying the auricle, the pulmonary veins would have valves, to prevent the regurgitation of blood. But, as yet, none have ever been discovered. In all the course of the circulation, we find valves in proportion to the force applied. Hence we might reasonably infer that the auricles do not really act—only passively.

The idea, then, that muscular fibres could be seen in the auricles, I believe to be an error that ought to be corrected; and if they can be shown to exist, then it is certain that the circulation of the blood does not obey the laws of force, and motion, and fluids.

If this view, then, be correct, the auricle is a passive, not an active appendage, and the blood would be acted upon the same as it would in the suction pump, where the column of water is subservient to the action of the piston.

So, in the circulation, the blood in the auricles depends upon the action of the ventricles. If passive, the auricles are

only *reservoirs*, and adapt themselves to the amount of blood required for the use of the ventricles.

In the structure of the heart, we see the vast difference between the right and left ventricles, in the compartive thickness of their parietes and the remarkably great strength of valves, to prevent reflux—all adapted to the two circulations, the general system and the pulmonary.

Now, if it is necessary to provide against regurgitation in one part of the circulation, where active force is used, it must be in all; therefore, if there were any muscular action, or other kind but passive, there would cetainly be valves at the auricles, or in the course of the pulmonary veins, otherwise the capillary circulation would be completely arrested, and the grandest object in the circulation defeated.—*N. O. Med. and Surg. Journal.*

COMPARATIVE VALUE OF ZINC IN CHOREA.

BY DR. STONE, MEDICAL REGISTRAR OF ST. THOMAS' HOSPITAL.

Dr. Stone's conclusions are based upon fifty cases of chorea admitted into St. Thomas' Hospital during the year 1858.

The general summary is as follows:

Of 16 cases treated with sulphate of zinc, 13 went out cured, 3 relieved; but two of the latter were in a fair way of recovery, and may probably be set to the credit of the medicament. On the other hand, three of those ultimately cured owed their improvement partly to ferruginous preparations, and in one case the zinc had no effect whatever. It may, then, be stated generally, that advantage was derived from the zinc in 14 out of 16 cases. The longest stay in the hospital among these cases, was 123 days; the shortest, 14; the average stay, 44.6 days.

Fourteen cases were treated during the same period with preparations of iron; all were cured. The longest stay in the hospital was 161 days; the shortest, 6 days; average stay, 44.2 days.

Twenty cases were treated with liq. potassæ arsenitis: 18 cured, 1 relieved, 1 died. The longest stay in hospital was 55 days; the shortest, 6; average stay, 26.3 days.

Average stay in hospital of the 50 cases submitted to three

principal remedies, 37.2 days; average stay of all the 54 cases, 35.4 days.

The results of this analysis are somewhat remarkable, as failing to confirm the usual estimate of the value of sulphate of zinc in this disorder. The iron seems to act more certainly, and the arsenic both more certainly and more rapidly, than the zinc. The average duration of treatment, both with iron and zinc, 44.2 days and 44.6 days respectively, is very similar, and both are above the general average of the whole number of cases, namely, 35.4 days; whereas the average stay of the arsenic cases, falls as low as 26.3 days. This difference is the more remarkable, as the character of the cases submitted to the arsenical treatment rather exceeded in severity that of the other; and, indeed, the only death recorded belonged to this division.

It remains a question whether the discrepancy between these results and those of some previous well-conducted observations is due to mere accident, or to some real difference in type between cases originating at different times, and under dissimilar circumstances.

MEDICAL STUDENTS AND GRADUATES IN THE U. S. DURING THE SESSION OF 1859–60.

Below we publish the number of students in attendance at the different medical institutions of this country. It will be seen from this list, which, although it does not represent all our schools, is probably correct, that the classes of the last session were, in the aggregate, much larger than those of the previous one:

	Students.	Graduates.
Jefferson Medical College	630	170
University of Pennsylvania	515	173
Pennsylvania Medical College	130	38
University of New York	411	138
College of Physicians and Surgeons	195	55
New York Medical College	75	20
University of Nashville	401	101
Buffalo Medical College	70	—
Medical Department of Yale College	—	13
Medical College of Ohio	123	32

	Students.	Graduates.
Virginia Medical College	—	82
Medical College of South Carolina	248	—
Atlanta Medical College	166	56
Savannah Medical College	—	12
Medical College of Georgia	—	62
Alabama Medical College	111	15
University of Louisville	130	38
Kentucky School of Medicine	—	38
Oglethorpe Medical College	60	21
Massachusetts Medical College	195	32
Rush Medical College	101	36
Shelby Medical Colle	75	9
Cleveland Medical College	70	18
Cincinnati College of Medicine and Surgery	97	30
New Orleans School of Medicine	216	63
St. Louis Medical College	—	52
Missouri Medical College	—	30
University of Maryland	—	50
University of Louisiana	401	113
University of Michigan	185	—
University of Virginia	104	—

BISMUTH IN GLEET AND LEUCORRHŒA.

BY M. GABY, OF PARIS.

Repeated trials have convinced M. Gaby that injections of oxide of bismuth constitute the very best treatment of gleety discharges. Thirty parts are suspended in two hundred of rose water, and so injected as to leave as large a deposite of the salt as possible in the canal. Three injections per day should be employed at first, and then fewer. He has collected forty-three cases thus treated with success, five of which he briefly relates. Urethral discharges, unconnected with gonorrhœa, as observed in certain diatheses, in masturbation, venereal excesses, etc., and increasing in quantity, even after pure connection, have been successfully treated by this means in three instances.

Balanitis and balanoposthitis, and herpes præputialis yield rapidly to bismuth, applied in powder, after cleansing the

part, and then covering with cotton. The various forms of vulvar leucorrhœa may be treated with bismuth. (One of these is entirely confined to the vulva, whether appearing as a consequence of follicular vulvitis, or without previous inflammatory symptoms. The latter is often met with in little girls.) Pregnancy, want of cleanliness, masterbation, worms, or contusion, are among the exciting causes. After removing all complication, the bismuth acts upon the discharge like a specific.

In the leucorrhœa of girls, powdering with bismuth is an excellent remedy. In ordinary vaginal leucorrhœa, occurring in women otherwise healthy, and having no other disease of the genito-urinary organs, the bismuth succeeds well.

Urethra-vaginal leucorrhœa, is almost always of infectious origin. In several instances reported, it yielded to bismuth after obstinately resisting other remedies. It is to be remembered that all the cases in which bismuth is useful are of the chronic description, and that pain and other signs of acute inflammation, contra-indicate its employment.—*North American Medical Reporter.*

IODIZED GLYCERINE IN SKIN DISEASES.

This solution is prepared after the following formula: ℞. Potassii iodidi, et iodini, each ʒ i.; glycerine, fʒ ij. Add the iodide of potassium to the glycerine, and when a solution is effected, add the iodine. A few minutes' agitation will cause a perfect dissolution.

This solution has the great advantage over alcoholic solutions of not drying; in consequence the surfaces remain supple and the absorption and action of the iodine is much prolonged. It should be applied to the affected part, and covered with gutta-percha paper, to prevent evaporation, and increase the perspiration of the part. It is left untouched for twenty-four hours, and the degree of re-action regulates its further application. The application of water will readily remove all traces of the solution. This solution occasions pain, which varies in intensity and duration according to the state of the diseased part and the sensitiveness of the patient. There has, however, never been any general inconvenience. On removing the application, the healthy skin has become brown and

the diseased parts paler than before. On ulcerating surfaces, no trace of iodine will be found two hours after its application. Sometimes its action has been so powerful as to produce phlyctene.

The results of Dr. Richter's experiments are, that this solution acts as a caustic; that it has really a heroic action in cases of lupus; that its efficacy is remarkable in non-vascular goitre, scrofulous ulcers, constitutional syphilitic ulcers—doubtful in primitive chancres and eczema, and useful in psoriasis.—*Wener Med. Wochens-Schrift.*

REMARKS AND TRANSLATIONS,

ILLUSTRATIVE OF THE PHYSIOGNOMY OF THE BATTLE-FIELD, AND THE ATTITUDES OF THE DEAD.

BY BENNETT DOWLER, M. D.

> Like so many Alexanders,
> Have, in these parts, from morn till even fought,
> And sheathed their swords for lack of argument.

The poet, in every age, has labored to veil the hideousness of the battle-field, the aceldama where victory and glory are won. Here, scattering the flowers of song to the memory of the fallen, he invokes the noblest, mightiest, yet too often the most selfish passion, the love of country, right or wrong, as not only justifying carnage, but requiring unnumbered victims. It is sweet, it is honorable, says the Roman poet, to die for one's country:

> "Dulce et decorum est pro patria mori."

> "How sleep the brave, who sink to rest,
> By all their country's wishes blest!"

But neither the masters of the world nor the poets can look the grim statistics of the killed and wounded in the face without comprehending their sad import, the unutterable anguish and bereavement of the families and friends of the slain and mutilated, and sympathising with the living and the dead.

The position of the medical man in the army, and particularly on the field of battle, though he is a non-combatant, is often one of danger, always one of usefulness, but never one of glory, in the military sense of that word. Amid dense

smoke, the clangor of arms, the thunderings of artillery, and the rattling of shot, the surgeon, in modern wars, operates, often immediately on the battle-ground, where many of the wounded may be thus saved, who would otherwise perish in a few moments from hæmorrhage, etc. And when the battle is ended, his work at the hospital or ambulance still goes on, as amputations, disarticulations, trephinings, extracting bullets and other projectiles, dressing wounds, fractures, etc.; while the victorious combattants are partaking of the loud acclaims and blandishments of the public, enjoying festivities and amusements, honors, promotions and repose. The surgeon, in the meanwhile, hears, instead of the pæans of triumph, the groans of the mutilated, and the last sighs of the dying.

It appears that during the recent battles in Italy, some of the French physicians were directed by their superior medical officers, in addition to their more immediate duties to the living, to study the physiological mechanism, if one may so speak, of death itself, as it occurred on the battle-field—that is to say, the physiognomy, positions and attitudes incidental to death from the arms of war, during, or as soon as possible after, the conflict. Thus the surgeon passed from his operating ambulance to view the fallen. Is not this an intensification of the moral sublime? a unique study; original? French? more than tragedians ever conceived?

Thus Dr. Armand, physician-major of the first class, chief of the ambulance of the headquarters of the fourth corps of the French army of Italy, relates, from personal observation, some interesting particulars concerning the aspects and attitudes of the slain on the battle-fields of the Crimea and of Italy—a condensed translation or sketch of which (from the *Gaz. Hebdom. de Med.*, Sept. 16, 1859) will be subjoined, as worthy of consideration, psychically, physiologically, and traumatically.

During the day of the battle of Magenta, including the night, eight hundred wounded Frenchmen and Austrians underwent capital or minor operations and dressings at the ambulance of Dr. Armand. With his two assistants, he had completed his work by the dawn of the following day, when he proceeded to inspect the bloody field of Magenta, and the attitudes of the slain. A melancholy, not a useless study.

Dr. Armand observed that a great number of the dead preserved, as nearly as may be, the same attitudes in which they had been when the messengers of death struck them—a proof that they had passed from life to death without agony, without convulsions. Those struck in the head generally lay

with the face and abdomen flat upon the ground, a position which the death-stiffness had not changed, holding, for the most part, their weapons still grasped in their hands.

Dr. Armand mentions a peculiarity often attendant upon wounds of the head, in which the patient thinks himself by no means dangerously hurt, although sometimes he dies, one might say, spontaneously, or by surprise. During the battle of Solferino, a soldier wounded in the head by a ball, entered the ambulance and was dressed by Dr. Lambert. The ball had perforated the skull and lodged in the cerebral mass; nevertheless, the patient's intelligence was perfect; he made light of his wound; lay down, having his lighted pipe in his mouth, with his head raised upon his knapsack against the wall, where he was found afterwards, with his pipe still in his mouth. He had expired without movement or noise. Dr. Armand details a similar case, that of a sergeant-major, whom Dr. Lambert (Dr. A.'s assistant) dressed in the Crimean war. The soldier smoked on for a dozen days after having been wounded; and having lighted his pipe for the last time, died suddenly, keeping it still in his mouth. These cases are, therefore, attested by at least two medical witnesses.

Dr. Armand says that soldiers who receive their death-wounds in the heart, fall and rest in the same manner as those who are killed by injury of the brain, though the death is not so instantaneous but that it may allow an attitude, which so to speak, is active. We have seen, among others, a Zouave struck fairly in the chest, who was brought together, or doubled upon his musket, as if taking a position to charge bayonet, his face full of energy, as if advancing with an attitude more menacing than that of a lion. It is reported that His Majesty had observed a similar case at Palestro.

On the other hand, an Austrian, who had died by hemorrhage from a ball which had divided the crural vessels, whose agony had been of some duration, as proven by the blood in which he was bathed, presented the attitude of supplication; he lay on his back, a little bent to the right, his face and eyes turned towards the heavens, both hands joined together, with the fingers interlaced and contracted. This man died in the attitude of prayer. In fact, religious ideas appeared to have prevailed quite extensively among the Austrian soldiers, as well as among the Russians in the campaign in the Crimea.

In the wounds of the abdomen, as the agony was more or less prolonged, the pains were intolerable, attended with vomiting and hiccough; the face of the corpse was was generally found contracted, the hands and forearms crossed and

closed upon the abdomen, the body doubled upon itself, and resting on its side.

At Ponte Vecchio di Magenta, a hungarian hussar, killed, (as was his horse,) remained in the saddle, lying upon the right side, having the point of his sabre in advance, in the position of a horseman when charging. He had roses still fresh in his tolpak, his forehead pierced with a ball; his horse was riddled with shot in the head, and both had died simultaneously. This case was witnessed by Dr. A. Renaurd. Dr. Armand relates a parallel case which occurred to an Austrian artilleryman.

At Melegano, several French soldiers, while charging bayonet, fell mortally wounded with grape-shot; their faces rested on the ground, and their bayonets pointed in advance.

At Magenta among the slain strewed upon the battle-ground several Austrian officers were recognized of distinguished physiognomy, dressed with the utmost care and propriety in glossy gloves—one might say that they had affectedly made their toilette in anticipation of death. Their fine blonde heads of hair and regular features, for the most part different from the common soldiers, had the expression of bravery and resignation.

Next to such a vast panorama of death, the dead-house of the Charity Hospital of New Orleans, during the great epidemic of yellow fever, may claim a place. The physiognomy of the yellow fever corpse is usually sad, sullen, and pertubed; the countenance dark, mottled, yellow, livid and bloodshotten. The veins of the face, and of the whole body, often become distended; the whole expression is less calm and placid than in most other corpses, especially such as have died of hæmorrhages.

The following tableau of the dead body of Goethe is by the masterly hand of Eckerman:

"The morning after Goethe's death, a deep longing seized me to look yet once again upon his earthly garment. His faithful servant, Frederic, opened for me the chamber in which he was laid out. Stretched upon his back, he reposed as if in sleep; profound peace and serenity reigned in the features of his noble, dignified countenance; the mighty brow seemed yet the dwelling-place of thought. I wished for a lock of his hair, but reverence prevented me from cutting it off. The body lay naked, only wrapped in a white sheet; large pieces of ice had been placed around, to keep it fresh as long as possible. Frederic drew aside the sheet, and I was astonished at the divine magnificence of the form. The breast

was so powerful, broad, and arched; the limbs full and softly muscular; the feet elegant, and of the most perfect shape; nowhere on the whole body a trace either of fat or of leanness and decay; a perfect man lay in great beauty before me; and the rapture which the sight caused, made me forget for a moment, that the immortal spirit had left such an abode. I laid my hand on his heart—there was a deep silence—and I turned away to give free vent to my tears."

Independent of experience, the physiologist cognizes no inherent necessity in life itself, nor in any of its organized forms of manifestation, nor in any of its structural adaptations and finalities, for a catastrophe so melancholy—so repugnant to the instincts of humanity as death. Indeed, the analogies of the material universe wherein stability reigns, or varies only in constantly recurring cycles, seem to teach that man, for whom all things appear to exist, is, what his irrepressible instincts claim, immortal—exempt from death! The stars rise undiminished as on the morning of creation, and "pursue the even tenor of their way" through infinite space. The earth, a little scarred on its face by volcanic eruptions and accidents, undecayed by age, "spins silently onward with spheres which never sleep; her unwithered countenance being as bright as at creation's day." Trees live thousands of years and some fishes for centuries. The inferior animals neither foreknow nor apprehend impending death at every step in life. This unpleasant secret is made known to man alone. A current, he can no more resist than the unfortunate boatman caught by the descending rapids of Niagara, hurries him over a precipice into a realm as tenebrious (after all the researches of mere physical science) as that into which the fabled Styx debouched in the days of antiquity.

Poets and philosophers have sought to bring out in the foreground pictures more cheering, so as to veil the sombre tableau of death in the distance. Bryant's picture is one of the most pleasing:

> "So live, that, when thy summons comes to join
> The innumerable caravan that moves
> To the pale realms of shade, where each shall take
> His chamber in the silent halls of death,
> Thou go not like the quarry slave at night,
> Scourged to his dungeon: but, sustained and soothed
> By an enfaltering trust, approach thy grave
> Like one who wraps the drapery of his couch
> About him, and lies down to pleasant dreams."

With unsurpassed beauty, La Fontaine calls death the evening of a fine day:

> "La mort est le soir d'un beau jour." (*N. O. Med. and Surg. Jour.*

PRACTICAL REMARKS ON FŒTAL AUSCULTATION.

BY R. DRUITT, L. R. C. P., LONDON.

The readers of the *Medical Times* have been startled by the announcement, on the part of one of the most learned physicians in the world, that the fœtal heart cannot be heard before birth; that if certain sounds be heard, said to be those of the fœtal heart, there is no certainty attainable that they are what they are supposed to be; and that the commonly described sounds are illusions, and exist only in the minds of the listeners. First of all, as to the facts asserted, and the reasonableness of them. To many physicians it is absolutely certain, that at most times, in women pregnant of a live child, especially after the fifth month, there can be heard, over some part of the enlarged uterus, a small and distant, but often remarkably distinct heart-beat, varying from 140 to 180 in the minute. By a heart-beat is meant a double beat, of one louder and more pronounced, and another shorter, immediately succeeding the less pronounced.

It is said to be incredible that the sounds of the fœtal heart can reach the ear through so great a mass, consisting of uterine tissues, vessel, and the limbs of the child. But the thickness of the uterus and abdominal walls is not great, and not to be compared in sound deadneing qualities to a common pillow. But who doubts that the ticking of a watch can be heard under a pillow? The writer has heard is own watch through the thickness of sixteen folds of blanket. There is, also, no real difficulty concerning the counting of so large a number of pulsations as 160 in a minute. The breathing of dying children may be distinguished at 180; the pulse at 240. The ticks of a lever watch are five to a second, and may most easily be counted at 240 per minute. When a piano is played rapidly the ear can readily recognize 720 sounds in a minute.

There is no doubt that a woman may be pregnant of a living child, and yet that at times the fœtal heart-sounds not be discovered even by one accustomed to the search. Hence, the absence of the sounds can never be taken as a proof that the fœtus is dead, or that pregnancy does not exist.

Again, sounds may be feebly heard, so that the observer cannot say that they are not heart-sounds; or other sounds may be mistaken for those of the fœtal heart. If the sounds are not confined to a small circle, or are synchronous with

those of the maternal heart, they should not be suspected to be fœtal.

Of all the signs which distinguish the enlarged uterus from other tumors, none are more valuable than the following: the uterus, like other hollow viscera, has a regular peristaltic motion, continuous throughout pregnancy, and after delivery, and consisting in periodic contractions, which cause a moderate but decided tension of the organ, and are followed by flaccidity and repose. No other tumor, not tympanitic, can do this; and, during the fits of contraction, the shape, dimensions, and outline of the organ are unmistakable. When about to auscultate, gently shampoo or roll the abdominal parieties over the womb, till it becomes hard and resisting. This is the moment for auscultation. Put the stethescope on the womb, and perpendicular to its surface. Search carefully on the horizontal line on a level with the anterior-superior spine of the ilium; beginning on the left side, then a little above and below; if unsuccessful, go to the right side. Take care that the attidude is easy, and produces no rushing sound in the ears.—*Medical Times and Gazette.*

Poisoning by Arsenic.—Dr. Blondlot has communicated, in a paper, to the Paris Academy of Sciences, a fact, which may be highly valuable in cases of poisoning by arsenic. After numerous experiments, he has come to the conclusion that the slightest quantity of greasy matter in contact with arsenious acid will reduce its solubility to about one-twentieth of what it was before. This explains at once why, in certain judicial investigations, arsenic has been sought for in vain in the liquid portion of the food contained in the stomach, when the food partly consisted of fatty substances, such as broth, milk, &c. It likewise explains how arsenious acid, taken in powder, may sometimes have sojourned a long time in the stomach before it produced any deleterlous effect, since in such cases its action was hindered by the presence of fatty substances. Jugglers have been seen swallowing arsenic with impunity, because, according to Dr. Blondlot, they have previously taken the precaution to drink milk and eat fat bacon. Hence it follows that in cases of poisoning by arsenic, fatty substance may be administered as real antidotes, capable of suspending the action of the poison for a considerable time, until more radical means of effecting a cure can be applied.—*Medical Times and Gazette.*

Losses Sustained by Armies.—M. Meyne, a surgeon in a Belgian regiment of artillery, in a recent work on medical statistics, makes some interesting statements upon this point. He says that an army of 100,000 men, by the sole fact of having entered on a campaign, *i. e.*, leaving out the influence of epidemics and battles, will have 10,000 men in hospital. At the end of some months, if there has been engagements, and the number of patients increase, as is usual, we must count upon a third being placed out of service by disease. During the first fifteen years of the occupation of the Algeria by the French, one-eleventh part of the force were carried off by disease, and a 265th part only by casualties of war, *i. e.*, 23 times as many. Of the 115,000 Russian soldiers who invaded Turkey in 1828–9, but from 10,000 to 15,000 repassed the Pruth, the rest succumbing to fever, dysentery, and pestilence. During the Peninsular wars, of 25,000 French, 3,000 perished on the road from Bayonne to Lisbon either from fatigue or the scorching sun of 1808. The English army, during a period of forty-one months, of an effective force of 61,500 combatants, lost 21,930 by disease, and only 8,889 by the casualties of war. The losses of the French during the Crimean war were 16,000 deaths by the accidents of war, and 53,000 by disease, *i. e.*, 16 to 53; and the proportions were much the same for the Sardinians and the English.

Medical Students in Paris.—The number of inscriptions taken at the Faculty of Medicine of Paris, at the commencement of the present scholastic year, was 988; namely: 922 for the degree of Doctor of Medicine, and 66 for the grade of Officer of Health. Among these are 304 new inscriptions. In 1858, the total number of inscriptions was 1065; the number of new ones, 251. Last year, 34 foreign students were inscribed in the separate register; this year their number is 48.—*Med. News and Library.*

Atropin in Epilepsy.—Dr. Maresch, physician to a lunatic asylum in Virginia, states in the *Medical Times and Gazette* that he succeeded admirably in the treatment of epilepsy with atropin. Of eight females three were cured, and the others greatly improved. Other statistics equally favorable are given. One-fifteenth of a grain of this remedy produces dryness of the throat, difficulty of speech and aberration of vision.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. August, 1860. NO. 8.

Original Communications.

ARTICLE 1.

REPORT OF SURGICAL CASES

TREATED AT THE CITY HOSPITAL DURING THE SUMMER TERM OF INSTRUCTION, BY GEORGE K. AMERMAN, M. D., ATTENDING SURGEON.

(Continued from the July No. of Chicago Medical Journal.)

CASE 5.—*Stone in the Bladder—Operation of Lithotomy—Recovery.*

August Schmidt, aged eight years, born in Germany; been in this country three years. Admitted into the City Hospital March 15th, 1860. No hereditary tendency to disease traceable; parents both living; The patient has always enjoyed good health until about ten months ago, at which time he began to suffer from pain and difficulty in urinating. At first, for several months, he concealed his sufferings, and nothing was known of it till September 1859, when it became so severe as to oblige him to discontinue his attendance at school and remain in his room most of the time. Several physicians were consulted, none of whom recognized the real trouble, or afforded any permanent relief.

I visited him, at his home, for the first time, in February, 1860. I found him in bed, greatly emaciated, having no

appetite, and at times suffering the most excrutiating pains. Aside from his general appearance, which indicated some serious constitutional trouble, the pain was the only marked symptom. This was paroxysmal, coming on every afternoon, lasting from two to four hours, then entirely disappearing until about midnight, when a second exacerbation would set in and continue till near morning. This regular recurrence of the pain was not invariable, the afternoon pain being occasionally absent, in which case the night exacerbation came much earlier. There was no apparent connection between these paroxysms of pain and urination. It was seated in the hypogastric region, the thighs, perineum, and particularly in the glans penis. The prepuce was elongated, the glans penis small, and the testacles drawn entirely out of the scrotum into the abdomen. He had learned, instinctively, to urinate whilst lying on his back with the legs and thighs closely flexed, and always assumed that position. He had never had any sudden stoppage of urine, had never been obliged to urinate oftener than three times a day, and never had suffered from hematuria. The urine contained an abundant deposit of the triple phosphate, mucous, and epithelium, but no pus or albumen. On using a sound, the presence of a calculus was readily ascertained, also its small size, and mobility. In sounding it was always necessary to administer an anesthetic. After repeated soundings, with invariably the same result, both by myself and my friend Dr. Ernst Schmidt, I advised his removal to the City Hospital and the operation of lithotomy. This was readily assented to by the parents, and March 20th, the time fixed for the operation. The only preparatory treatment consisted of a cathartic administered the night previous.

The operation was performed in presence of the class attending the summer course, and several physicians of the city. The instruments used consisted of an ordinary scalpel, grooved staff, and lithotomy forceps. The staff, owing to the small size of the urethra, corresponded with a No. 7 sound. He was placed on a firm table, and sulph. ether given as an anesthetic. After the production of partial anesthesia, the

bladder was injected with about four ounces of tepid water, the staff introduced and held in the mesial line, closely hooked against the pubes, and the limbs firmly held in the usual way. The action of the ether was slow and imperfect, nearly a pint being inhaled before its effects were sufficiently strong to commence the operation. The struggles of the patient during its inhalation, were also embarrassing, and delayed the operation for several minutes, besides causing the expulsion of the contents of the bladder. The old lateral method of operating was adopted in this case, and as it differed in no respect from the ordinary mode, requires no particular description. The bladder was found perfectly empty, the stone resting at its bas fond, and easily extracted. Not over one ounce of blood was lost during or after the operation. The patient was immediately removed to a bed, properly prepared to protect him from the contact of urine, an anodyne given, and the wound left entirely to itself. The stone was of small size, conical in shape, and exceedingly rough on its surface.

March 21.—Patient slept well last night; better than at any time during the last three months. Urine passes freely through the wound. No pain; pulse 140. Ordered emulicient drinks and small doses of digitalis.

March 22.—Doing well this morning. Slight tenderness over the hypogastric region; pulse 140. At noon the abdominal tenderness had increased, also considerable tympanitis. Gave opium freely, and applied warm fomentations. At midnight pulse 138; patient sleeping and perspiring freely.

March 23.—Pulse 130; tenderness considerably less; opium occasionally; fomentations as usual.

March 27—(Seventh day.)—All symptoms of peritonitis entirely disappeared. Urine passed per urethram for the first time last night. The greater portion, however, continues to discharge through the wound. From this time forth the daily notes of the case contain nothing of interest or importance. He was discharged cured May 23d, sixty-four days after the operation.

Remarks.—One feature in the symptoms of the above case, the paroxysmal character of the pain, is rather an uncommon

accompaniment of this affection; otherwise it presents nothing unusual. The absence of hematuria, increased frequency of micturition, and sudden stoppage of urine, may all be accounted for by the absence of any organic disease of the genito-urinary organs. Nearly all the rational symptoms of stone, except the sudden stoppage of the flow of urine, depend on disease of the urinary organs, produced by the continued irritation of the calculus, and hence, in the absence of any such disease, there is, necessarily, an absence of all rational symptoms. The physical sign obtained by the sound, the click heard when a solid instrument is introduced into the bladder and brought in contact with the stone, can alone be depended upon in the diagnosis of calculus, and even it is not infallible. The operation of sounding, simple as it is, requires great care and considerable experience, to make it satisfactory or certain. It should never be prolonged beyond a reasonable length of time, serious and even fatal consequences having occasionally resulted from a protracted sounding. It should always be repeated several times before a positive opinion is rendered, or an operation advised. It should always be resorted to just before the operation, after the patient is on the table and every thing prepared, and if no calculus be then felt, the operation must be postponed. It, in connection with the rational signs, generally renders the diagnosis easy and certain, but when we remember that such men as Cheselden, Dupuytren, Roux, Crosse, Tyrrell, Cotta, Vacca, and others equally as eminent, have all cut into the bladder and found nothing, it cannot fail to make us exceedingly cautious.

The treatment of stone has, at the present time, narrowed itself down exclusively to two operations. *Lithotrity*, or the introduction of instruments especially made for that purpose, into the bladder, grasping the stone and crushing it, and *Lithotomy*, or the cutting operation, the incision of the bladder either through the abdomen, perineum, or rectum. Nearly every case of stone will admit of one or the other of the above operations. If the surgeon finds the urethra large, the urinary passages and bladder healthy, the calculus small and friable, he may recommend lithotrity, with a reasonable expec-

tation of its being successful. But, if the calculus is large and dense, the urethra small, and the bladder irritable, lithotomy must have the preference. Every case should be carefully studied, and that course of treatment selected best calculated to meet the peculiarities of that particular case. Prejudices against, or preferences for, any particular operation or plan of operating, should never influence the surgeon to a course against the best interests and welfare of his patient. They are both attended with difficulties and dangers which should be fully understood by every one undertaking their performance. The difficulties may be, in part, overcome, but most of the dangers, are inherent to the operation, and cannot be avoided. One observation, in explanation of the long time the above case was under treatment after the operation, is, perhaps, necessary. The urine passed through the urethra for the first time on the seventh day after the operation, and continued to do so without entire interruption ever afterwards, at the same time the most of it was voided through the wound. This depended principally, on the patient's being stubborn and contrary, so that he would frequently allow the bladder to become immensely distended without any attempt or effort to urinate, naturally, and, whilst in this condition the adhesion of the wound would give way, and the water gush out through it. This condition of things existed for several weeks, in spite of all our efforts to the contrary, and finally resulted in a fistulæ, which added considerably to the time required for a complete cure. Under more favorable circumstances, we believe half the time could easily have been saved. No kind of dressings were ever used to the wound.

CASE 7.—*Railroad Injury—Amputation of the Thigh—Recovery.*

M. A. C., aged six years, was brought to the Hospital Feb. 17, 1860, with a severe injury of the right lower extremity, received about two hours previously. She states that while she was under a loaded freight car, endeavoring to get a piece of wood, the train started, and in her effort to escape her right limb was caught in such a way that one of the trucks

passed entirely over it. The injuring extended from the ankle to the knee, lacerating all the soft parts, and fracturing both bones in several places. The blood vessels were so torn and twisted that when the part was kept quiet there was scarcely any bleeding. The foot was cold, pale, and insensible; the pulse nearly normal. There was no pain in the part, and as soon as the patient was placed in bed in a comfortable position, she sank into a quiet, natural sleep. The severity of the injury precluded any attempt to save the limb, and after obtaining the consent of the parents, it was decided to remove it immediately. Sulph. ether was given as an anesthetic which acted favorably without producing any unpleasant nausea or vomiting after the operation. The limb was amputated at about the middle of the thigh, the anterior and posterior flap method, not over two ounces of blood being lost during its performance. Simple dressing were applied and the case placed in charge of Dr. H. Durham during the night, with directions to give opium and brandy according to circumstances.

March 18.—During the night the patient has taken half an ounce of brandy and one grain of morphine. Reaction perfectly established this morning. Pulse 128; patient sleeping quietly from the effect of the anodyne; stump not disturbed.

March 19.—Patient slept the greater part of last night under the influence of an anodyne. Pulse 140; with considerable fever; stump looking finely; flaps united, throughout most of their extent; gave digitalis in small doses; simple dressings to the wound; anodyne at night.

March 23.—Constitutional excitement nearly subsided; wound discharging thin, unhealthy pus; flaps separated somewhat since last note; ordered quin. and iron; good diet, and porter. From this time onward the daily notes of the case contain nothing of interest or importance. The wound, owing to the gradual impairment of the general health of the patient healed slowly, and at the end of my term of service at the hospital was nearly as large as the palm of the hand. About one week ago, the last time I saw the case it had nearly cicatrised.

CASE 7.—*Railroad Injury—Amputation of the Leg—Gangrene of stump—Death on the 9th day.*

E. J. B. aged 37 years, born in England, was admitted into the City Hospital March 15th, near midnight, having received an injury of the left foot and ankle about four hours previously. The injury extended from the toes, on the dorsal surface of the foot, to two inches above the ankle joint, lacerating and completely destroying the greater portion of the integument, exposing the flexor tendons of the foot, separating and denuding the bones of the meta-tarsus, and opening the anterior surface of the ankle joint. There was no fracture or dislocation at the time of her admission. The shock of the injury, added to the fatigue of a long ride subsequent to its occurrence, and the loss of a large quantity of blood, had produced greater prostration than usual. She was placed in bed, the injured foot and leg covered with lint dipped in cold water, and brandy and opium given freely during the remainder of the night. In a few hours, reaction set in and became fully established early the following day (16th).

The amputation of the leg was at once recommended, consent given, and the operation performed at the afternoon clinic hour of the hospital, in presence of the class. Sulph. Ether was given as an anesthetic, the limb amputated in its upper third just below the tuberosity of the tibia, by the anterior and posterior flap method. Very little blood was lost during the operation, and that mostly venous. The flaps were brought together by interrupted sutures, and strips of adhesive plaster. A piece of lint soaked in water applied to the end of the stump, the whole confined with a roller bandage completed the dressings. The patient placed in bed, and brandy and opium given during the day and night.

March 17.—Patient rested a part of last night after taking one gr. morphia. During the latter part of the night she became very thirsty and drank a large quantity of water. Pulse 100, skin warm, no pain except an occasional twinge in the stump; stump not disturbed. Ordered pills of quin. and iron during the day, anodyne at night.

March 18.—Rested only the fore part of the night. Con-

siderable sharp, shooting pain in the stump. Pulse 100, the flaps of the wound lying against each other without any adhesion of their surfaces or evidence of inflammation. A thin, reddish, serum ran out when the lint was removed, but not the slightest trace of suppuration. Several vesicles filled with same kind of material existed on the anterior flap and surface of the limb. Same dressings re-applied and in addition to the quin. and iron, ordered beef tea and porter.

March 20.—Pulse 112, skin very hot, patient restless, and suffering from pain in the stump; no appetite; stump swollen, of a purplish red color; vesicles scattered over it, and discharging a thin, unhealthy pus; continue same constitutional treatment. The stump was thoroughly cleansed by injecting a sol. of chlorid soda, then painted with a sol. iodine, the flaps dusted with pulv. cinchona and a roller applied.

March 22.—Patient beginning to show signs of exhaustion; no appetite, no pain, skin sometimes hot, sometimes covered with cold perspiration. The stump adematous and languid; the anterior flap dead and sloughing; continue same treatment with the addition of brandy.

March 25—(Ninth day.)—Patient moribund; unable to speak loud enough to be heard; skin cold and covered with perspiration; breath cold; no pain; stump emphysematous; blue lines running up the thigh; died at noon.

Remarks.—The two preceeding cases represent a class of injuries of frequent occurrence and of the first importance to the Surgeon. Railroad injuries closely resemble in their nature and tendencies gun-shot wounds. They are always followed by severe constitutional disturbance, and frequently, a much more serious local lesion than their first appearance indicates. When they are of such a nature as to call for amputation of the injured part, the operation is always a very serious one. Primary amputation, of the lower extremity, for railroad injury, is one of the most fatal operations in surgery. Primary amputation of the lower extremity, is always a serious undertaking. Of twenty-four cases of amputation of the thigh for injury recorded by the London surgeons, every one proved fatal. Of thirty-one cases of amputation of the leg, seventeen

proved fatal, over one-half. The fatality of primary amputations for railroad injuries is determined in a great degree by the surrounding circumstances. The situation of the injury, its extent, the length of time after the accident, the amount of blood lost, the age, constitution and habits of the patient all exercise an important influence over the result of the operation. The causes of death are essentially the same as in other injuries. Shock, hemorrhage, erysipelas, and empyemia, are among the most common. The shock attending railroad injuries is always greater in proportion to the extent of the injury than in similar cases produced by other means. The hemorrage, like that of all lacerated and contused wounds is seldom of a serious character. It does not often happen that persons die of railroad injuries where the extremities are alone involved, either from shock or hemorrhage, but, when any of the internal organs are implicated, or the case not properly attended soon after the occurrence of the injury, the combined effects of the two, will frequently prove fatal in a few hours. Two such instances have come under my observation during the last year. Both happened in the night some distance from the city, and were not seen until several hours after their occurrence. During this time nothing was done to arrest the hemorrhage or bring on reaction and when the cases came under my charge, the prostration was so great that neither reacted or survived longer than twelve hours. In both, the injury was confined to the lower extremities.

Erysipelas, gangrene, and empyemia, are frequent occurrence after railroad injuries, and especially after amputations performed for their relief. The nature of the injury, the crushing and mangling of the parts, seems in some way, to predispose the system to each of the above accidents. Empyemia is especially apt to follow, and should always be anticipated and as far as possible guarded against. It generally manifests itself during the second week, sometimes in comparitively mild cases, and proves rapidly fatal. The treatment of these injuries, must depend on the nature, extent, and situation of the wound, the condition, constitution, age, and habits of the patient, and other circumstances surrounding the

case. No particular plan is applicable in every case. They must be treated on general principles. In every doubtful case, an attempt should be made to save the limb, and, if unsuccessful, a secondary amputation resorted to, which is attended by a much more favorable result than the immediate removal of the part.

ARTICLE 2.

CASE OF SPINA BEPIDA SUCCESSFULLY TREATED BY IODINE INJECTIONS.

BY DANIEL BRAINARD, M. D., PROF. OF SURGERY IN RUSH MEDICAL COLLEGE, ECT.

June 6, 1860, a female child from Michigan was presented to me for treatment. It was eight months old, well formed and healthy in every respect excepting a tumor situated over the upper part of the sacrum. This tumor measured six inches in circumference around the base, eight inches around its largest part, and was elevated two inches above the surrounding skin. Its surface was irregular, resembling that of a tomato, a piece of the colon when inflated. It was translucent elastic at points, and at others the walls were firm like the tissue of cicatrix. A great portion of its contents could be pressed into the spinal column without giving rise to any other inconvenience than making the child cry.

June 6.—Present Dr. Haydock. I passed an exploring trochea into the sac, through a part of the covering, which was thick, and drew off about one ounce of fluid. I then had the neck of the sac pressed on each side and injected through the canula a solution containing $\frac{5}{8}$ gr. of iodine, and $1\frac{1}{2}$ grs. iodide potass, in a drachm dist. water, intending to let it flow back through the canula. This, however, it would not do, and I injected two drams of dist. water, which was allowed to remain. The child, during the operation, was kept under

the influence of chloroform. The operation was done at 6 o'clock P. M.

8 o'clock.—Skin hot; child starts in sleep as if frightened; takes the breast.

June 7, 8 o'clock A. M. Has not slept well; has perspired freely; taken the breast; tumor flaccid.

6 P. M.—Seems perfectly well; tumor tense and redder than before the operation.

June 8, 12 M.—Child seems perfectly well; urinates more than natural; tumor tense and red; child laid on the face and side.

June 9.—Tumor red and firm; child perfectly well.

June 10.—Tumor flaccid and pale; applied bands of gum elastic around it.

June 14.—Tumor much reduced. Introduced into a point where the skin is thick and sound, a common hydrocele trochar, and drew off about two drachms of serum tinged with blood from wounding the internal membrane; washed out the cavity with dist. water, and injected the solution used before, as much as could be pressed in, then washed it out with distilled water and applied isinglass plaster.

During the operation a tape was tied tightly around the base of the tumor so as to cut off the connection with the spinal canal, and the child kept under the influence of chloroform.

The operation seemed at first to produce no sensible effect. About an hour afterwards the child had coldness of the feet and hands. This was followed by some reaction and this by sweating. The next day there was some redness and fullness of the tumor which had entirely lost its elasticity.

The patient was seen by Drs. Powell and Paoli.

For three days the tumor was tense, firm and red. After that time it became pale and flaccid.

June 25.—Applied pressure by a gum elastic band around the body, and a band of the same material around the tumor. While this remained it was reduced to about one-third its former size.

June 30.—The tumor is pale, wrinkled, firm, not fluctuating;

appears quite solid. Pressure continued by a strip of adhesive plaster passed circularly around it, and the gum elastic band made for a hernia truss passed around the pelvis, so as to exercise compression upon it.

July 6.—Tumor forms only an innodular mass diminishing in size. The patient was allowed to return home with directions to continue the compression as long as might be necessary to efface the walls of the sac.

Remarks.—In the No. of this journal for September, 1859, I gave a full account of the origin and history of this treatment as applied to spina bepida, up to that date.

The cases then treated numbered but ten. Since that time Dr. Brackett, of Rochester, has had a case under treatment, the result of which has not yet been fully ascertained, but which Dr. Brackett writes me promises to be favorable, as, although very delicate, the child had, thus far, (at the time of writing,) been better from the effect of each injection.

The case above reported is the sixth which I have treated by injections, and is the most favorable, being the first which was uncomplicated by hydrocephalus, or paralysis. It was also more favorable than previous cases, in these respects the tumor was pediculated so that the injection could be readily prevented from entering the spinal canal, and the walls of the tumor were so thick, at points, that a common hydrocele trochar could be used without danger of subsequent leakage or ulceration.

In any similar case, I should desire: 1st, to tap the sac and draw off the serum; 2d, to make compression so as to prevent the iodine from entering the spinal canal; 3d, inject a solution of iodine, of the strength of five grains, and thrice that quantity of iodide of potash to the fluid ounce of distilled water; 4th, withdraw the injection, wash out the sac with distilled water; 5th, re-inject the serum, or fill the sac with distilled water. The puncture should be carefully closed after withdrawing the camula.

When the tumor is not pediculated, so that the solution may be prevented entering the spine, then the rules I gave in the article refered to, seem to me judicious.

In the case herein reported, no symptoms were produced except those of an over-dose of the solution, diaphoresis, and diuresis, and except for the difficulty of getting rid of the firm walls of the tumor after the sac was obliterated, the case was not more difficult to treat than a hydrocele.

Chloroform Vapor in Ear-Ache.—The use of oil and chloroform in ear-ache is familiar to many. A recent case treated by Dr. L. D. Ford, of this city, develops the use of chloroform vapor for this affection on a method which proved highly satisfactory. The patient, a child, suffered severely, and other remedies failing, Dr. Ford used the following extemporaneous expedient:

Taking a 2 oz. vial, a small opening was punched through the bottom, a little cotton-wool soaked with chloroform was then put into the vial. The mouth of the vial was now applied to the external meatus. The attendant then placing his lips to the punctured extremity of the vial, *blew the vapor into the external ear.* The relief was instantaneous, and the patient soon fell asleep, being cured by this single local application. We commend the above method as well worthy of trial in cases of this painful affection of childhood.—*Southern Med. and Sur. Journal.*

Chlorate of Potash in Mercurial Salivation.—In a great number of cases in which the energetic use of mercurials had to be suspended, on account of salivation supervening, its continuance was rendered possible, by giving to the patients, daily, from ʒ i to ʒ iss of chlorate of potash; the phenomena of mercurialization disappeared during this treatment, or very nearly so, whilst the cure of the disease was in no way retarded.—*Zeitschr. d. Wiener Aerzte.*

Editorial.

PROCEEDINGS OF THE ROCK RIVER UNION MEDICAL SOCIETY.

The Annual Meeting of the Society, was held at Morrison, Whitesides Co., June 13th and 14th.

The members convened at Masonic Hall. The President, Dr. H. C. Donaldson, having called the meeting to order, the proceedings of the last meeting were read by the Secretary, and on motion accepted. Constitution read.

Drs. A. G. Porter, H. M. Freas, Arthur Nowlan, and E. M. Winters, being proposed as members of Society, were on motion admitted.

The reading of the President's address being called for, Dr. Donaldson stated that, in place of an address, he had prepared an essay; subject—"Delivery of the Placenta"—which he proceeded to read. Dr. Donaldson advocated the earlier introduction of the hand into the uterus, in case of retained Placenta, for its removal, than he believed to have been usually practiced; that the danger of introducing the hand into the uterus, had been exaggerated; that in cases of retained Placenta, the introduction of the hand is not only the best means for removing the Placenta, but is generally the only means of forming a correct diagnosis.

On motion of Dr. Hudson, the essay was accepted, and the Secretary directed to place it among the society's papers.

Dr. Hudson made some remarks "on the appearance of the tongue in disease—its value as a diagnostic sign."

Dr. H. believed the condition of the tongue by itself an uncertain guide generally; the fur or coat upon the tongue, is not of itself indicative of any particular condition, it is not a good reason to give a purgative, because the tongue is coated.

Drs. Coe and Porter believed the condition of the tongue to be an important guide, when grouped with other symptoms.

A discussion sprung up in renard to the abortive or cutting-short treatment of disease, which was participated in by Drs. Coe, Winters, Porter and Hudson.

Dr. Phillips reported two cases of amputation of the thigh, the limb having become gangrenous on account of a severe injury; in both cases the gangrene was extending at time of amputation; in one case the recovery was rapid: in the other the patient died the fourth day after amputation, from the effect of purulent absorption, or some product absorbed from the decomposing limb, an erysipelatous inflammation, attacking simultaneously, the stump, face and lungs.

On motion, adjourned until evening session.

Dr. Coe related a case of calculus of bladder, a fistulous opening extending from a point near the crest of right ilium to the bladder, through which the stone could be felt by a probe, and urine passed at times. The patient dying, the post-mortem revealed a large stone in the bladder; left ureter thickened and enlarged, the left kidney was a mere sac, the organ having been broken down and absorbed, leaving only the fibrous covering or capsule.

On motion of Dr. Hudson, a committee of two was appointed by the President, consisting of Drs. Hudson and Utley, to collect facts in relation to the recent tornado and report to the Secretary of the Smithsonian Institute.

The Society proceeded to the election of officers for the ensuing year, with the following result:

President—Dr. A. G. Porter.

Vice President—Dr. H. M. Freas.

Secretary—Dr. G. W. Phillips.

Treasurer—Dr. Moses M. Royer.

Dr. Porter upon taking the chair made a few pertinent remarks, thanking the Society for the honor conferred.

On motion, three censors were appointed, consisting of Drs. Donaldson, Royer and Freas.

On motion the Secretary was instructed to draft a memorial to be signed by the officers of the Society praying the Legis-

lature to pass a law for the registration of births, marriages, and deaths.

Committee upon fee-bills reported in full, report adopted, and Secretary instructed to ascertain previous to next meeting of the Society, the expense of publishing 100 copies of the same.

Adjourned until after public address.

The Society having convened in the Public Hall, Dr. A. S. Hudson being introduced to the audience, gave as the subject of address, "Light, or the Sunbeam," the delivery of which was listened to with fixed attention.

The Society having convened at Masonic Hall, on motion of Dr. Hudson, Dr. A. G. Porter was chosen to deliver the address at next meeting.

On motion of Dr. Hudson, Dixon was selected as the place for holding next meeting.

On motion of Dr. Donaldson, the Secretary was instructed to furnish a copy of the proceedings for publication in the *Chicago Medical Journal.*

Discussion upon delivery of placenta by Phillips, Donaldson, Utley, Coe, and Hudson. Many of the members stated their practice to be not to wait (after having severed the cord and disposed of the child,) for a return of pain as directed by most authors, but to proceed at once to the delivery of the placenta, excititng pain by traction upon cord, and grasping the uterus through the walls of the abdomen; alleging that the sooner the placenta is expelled the less danger there will be of accident as flooding, hour-glass contraction &c.

Dr. Utley read from his note book a description of cases of diphtheria occurring at Como last winter; false membrane first appearing upon the fauces, then extending to the larynx, consequently death by suffocation; mortality small; no fever attending the affection; pulse soft; convalescence slow. Dr. Utley believes cold water applied to the throat at the commencement of the disease the sheet anchor; if this fail, next best remedies, mercurials and chlorate of potash.

Dr. Phillips related a case of diphtheria occurring at Dixon last winter, the patient a little boy three years old; the false

membrane did not form upon the fauces, but formed primarily within the larynx and trachea and was expectorated as a dense, pearly white membrane, in a violent paroxysm of coughing and suffocation; a partial formation of the membrane occurred twice after this, but was dislodged by emetics; no fever in this case; pulse weak; tongue covered with a thin, moist, yellowish fur, dry and smooth at tip the third and fourth days; patient recovered; treatment, calomel in two gr. doses every two hours, continued right along until gums were affected, a few free doses of sulph., quinea, nitrate of silver to fauces, and emetics.

On motion, four committees were appointed by the President consisting of three members on each committee, one upon surgery, consisting of Drs. Utley, Phillips, and W. W. Winters: upon practical medicine, consisting of Drs. Freas, Donaldson, and Geo. W. Hewitt; upon obstetrics, consisting of Drs. Hudson, Donaldson, and Edward Winters; and one upon the best means of preparing medicines for convenient administration to young children, composed of Drs. Coe, Abbott, and Jackson.

On motion, the Society adjourned.

G. W. PHILLIPS, M. D.,
Secretary.

DE WITT COUNTY MEDICAL SOCIETY.

The Society met in quarterly session, at the office of Dr. Richards, at Santa Anna, on the 3d day of July, 1860, at 10 o'clock A. M. Present, Drs. J. H. Tyler, Evan Richards, John McHugh, John Wright, H. S. Norris, Stephen T. Noble and Christopher Goodbrake; also Dr. Fisher, of Le Roy, and Messrs. Edwin Gideon and Rolla T. Richards, medical students, with a goodly number of the citizens of Santa Anna. Dr. John H. Tyler in the chair.

The minutes of the last meeting were read and approved.

On motion of Dr. McHugh, Dr. Fisher, of Le Roy, McLean Co., was invited to participate in the proceedings of the meeting.

Dr. Norris reported a singular case of spasms of an unusual character, in a boy about 15 years of age. From the description as given by Dr. Norris, Dr. Goodbrake supposed masturbation to be the cause.

Dr. Stephen T. Noble read a very interesting essay on "Puerperal Peritonitis," which was discussed by most of the gentlemen present; and on motion, Dr. Noble was requested to furnish a copy for publication.

Dr. Richards read a translation from the French "On Experimental Researches on the Physiology of the Medulla Oblongata," by Brown-Sequard. Also a translation from the French, by Brown-Sequard, "On the Independence of the Vital Properties of the Motor Nerves.

The pathology of fevers was then discussed by most of the members present.

At 4 o'clock the Society adjourned to a grove adjoining the town, to hear an address by Dr. Richards, on "Common Sense, and the Science of Medicine."

After returning to the room Drs. Adams and Edmiston, were continued to read essays at the next meeting.

Cholera Infantum was chosen for the subject of discussion the next meeting.

On motion of Mr. Gideon, the thanks of the Society were voted to Dr. Hugh & Richards, and their ladies, for the very excellent dinner served up for the members of this Society, at the present meeting.

On motion, the Society adjourned to meet in semi-annual session, in the town of Wapella, on the first Tuesday of October next, at 10 o'clock A. M.

CHRISTOPHER GOODBRAKE,
Secretary.

Prof. Brainard: Being appointed a Committee on the Progress of Obstetrics, at the last annual session of the Indiana State Medical Society, to report at its next annual communication, to be held in May, 1861; and as I am desirous of making as full a report as possible, I hope you will permit me to solicit information upon the following subjects, of the many readers of your journal:

The Number of Abortions.
" " Twins.
" " Stillborn.
" " Death of Mother during Labor.
" " Hemorrhage, before, during or after Labor.
" " Eclampsia, its Pathology and Treatment.
" " Rupture of Uterus.
" " Instrumental Labors.
" " Mal Presentations, and nature of.
" " Number born, and sex.
" " Puerperal Fever, its Pathology and Treatment.
" " Nursing Sore Mouth, its Pathology and Treatment.

I hope all physicians into whose hands the above may fall, will please favor me with a reply to the above interrogatories, in connection with all other matters of interest in relation to the Science and Practice of Obstetrics, by March 1st, 1861. Address.

A. HEAVENRIDGE,
Stilesville, Indiana.

NOTICE TO MEDICAL MEN IN ILLINOIS.

The undersigned were appointed at the last meeting of the Illinois State Medical Society, a Committee on Drugs and Medicines.

In the constitution of the Society we find the duties of the Committee to be as follows:

"The Committee on Drugs and Medicines shall prepare an annual report on all improvements and discoveries in pharmacy and materia medica, effected during the year, and on all subjects connected with the sophistication and sale of drugs and medicines."

The Committee would respectfully request the physicians of this State to report, in reference to this subject, the results of their observations, and send as soon as the first of April, 1861, to

F. K. BAILEY, Chairman,
Joliet, Will Co.
R. G. LAUGHLIN,
Heyworth, McLean Co., or
H. R. PAYNE,
Marshall, Clark Co.

FROM TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.

The Committee of Conference appointed to confer with the Committee of Medical Teachers offered the following resolutions for adoption by the Association:

Resolved, That it is the duty of medical colleges to require of every candidate for the degree of Doctor of Medicine, certificates of study during the full period of three years, under the direction of a regular practitioner of medicine, recognized by the American Medical Association, who shall certify, under his own hand, as to an attendance on two full courses of lectures, with an interval of at least three months between the termination of the first and the commencement of the second course.

Resolved, That every medical college shall keep a volume, in which every medical student presenting himself shall enter his name, his age, the period of his commencing the study of medicine, any diploma he may have received in evidence of previous education, with the name of the college or school

from which he received such diploma, and the name of the preceptor with whom he has been studying.

Reolved, That hospital clinical instruction constitutes a necessary part of medical education, and every candidate should be required to have attended such instruction regularly for a period of not less than four months.

Resolved, That the professors of every medical college should recommend to their trustees, or board of managers, the adoption of a rule authorizing them to allow the attendance of two or three delegates from the State Medical Society, at all examinations of candidates for the degree of the doctorate, and accord to these delegates a vote on the question of recommending such candidates for a degree.

Resolved, That every State Society be recommended to choose proper delegates, at its annual meeting, to attend the examination of candidates for the degree of M. D., at all the medical colleges within their respective States.

Resolved, That this Association will not recognize as a regular organization any college which does not require evidence of suitable preliminary education from all applicants for collegiate medical instruction.

Resolved, That we commend the use of all proper efforts, by which the attention of persons of means and liberal disposition, is well as legislative bodies, shall be directed to the propriety of endowing such medical colleges, and professorships thereof, as shall be recognized by the Association.

Resolved, That this Association recognize as a regularly organized medical college, one which has been represented at any meeting of the Association, and which complies with the preceding rules and directions.

Resolved, That this Association recognize as regular practitioners of medicine, all who have been members of this Association, and have not forfeited their rights and privileges, and all members of State and County Societies in full standing:

The report was received and taken up by sections. When the first resolution came up, a motion was made to amend, by striking out that part requiring an interval of three months to elapse between the termination of the first course and the commencement of the second; the objection being that the resolution, if adopted as offered, would do an injustice to summer schools, whose sessions would have to begin three

months after the closure of the winter sessions, in order to graduate students, thus throwing the session into July, August, and September, and crowding upon the next winter session; and that such a course would drive students altogether from the summer schools.

Dr. McDowell, of Missouri, spoke in strong terms against the amendment. He despised the plan of some professors, who teaching at a winter school in the South, immediately the winter session closes, bring their half-fledged brood to a Northern summer school, and there delivering a *second* course of lectures, foist their hastily hatched students upon the medical profession. He was entirely opposed to the practice of pushing and forcing which was becoming so rampant.

The discussion was further participated in by Drs. Shattuck, of Boston; Austin Flint, New York; Brodie, of Mich.; Palmer, of Mich.; Nourse, of Maine; Atlee, of Pa., and others.

Dr. John L. Atlee, of Philadelphia, would rather increase the interval to six months. Nor did he want, as others suggested, to leave the matter to the discretion of the professors in the different schools. His experience proved that a man never becomes a thorough and proper student of medicine until *after he has attended his first course of lectures;* for he then learns what is required, and how he should direct his studies so as to profit by them; and as he studies in the interval between the collegiate courses, the demonstrations of the previous winter reappear to him as he reads his text books, giving an interest to the study he could have sought for in vain before he had attended a course of lectures. He would rather have the course of instruction lengthened to eight or nine months, and have a less number of daily lectures. He wanted no student to have credit for attendance on more than one full course in one year, no matter how many regular courses he may have attended, and he moved to amend the amendment by striking out "an interval of three months," etc., and inserting, "and no student shall be credited for

having attended more than one full course of lectures in any one year."

A motion of Dr. Bennett, of Danberry, Conn., to lay the whole matter on the table, was lost.

Dr. Johnson, of Mo., did not want the courses to follow too closely on each other. Apart from other considerations, such a course would crowd the student too much, and overtax his powers of physical and mental endurance. Students required time for relaxation, whether they wanted it or not; and therefore he was in favor of a considerable interval between the courses, and only one course in a year.

Dr. Worthington Hooker, of New Haven, Conn., thought there was not too much actual instruction being crowded together that was to be avoided, but rather too much lecturing, which brings different subjects in too close connection before the minds of the students, and taxes their energies too much, and therefore he did not want the courses crowded on each other; nor did he want the lectures to be as crowded as they usually are. He stated that in the medical department of Yale College, it was customary to make a distinction in the ability for receiving instruction, between medical students who had received the advantages of a previous classical education, and those who had not enjoyed this privilege; and that they considered classical students full one year in advance of the others, and that they made this distinction in their favor regarding the length of time required to be devoted to the special study of medicine. They only required two years' application from classical students, while they exacted three years' study from all others. He firmly believed that a difference of one year should be made, but he would prefer the course of application to be extended one year longer in each case, thus making it three and four years' study, instead of two and three, as it now is.

Dr. Atlee was here allowed to alter his amendment so it should read, "and no student shall attend a second course of lectures until a year shall have elapsed since the commencement of the first course."

Dr. Reese, of N. Y., remarked, that as the winter schools

closed in March, and the summer schools could not, by the resolution, begin in June, this would force students to employ in study the months of July and August, which is the general period of relaxation from labor; and thus, virtually, in a great measure, prevent graduation at the summer schools.

After some more discussion, the amendment of Dr. Atlee was adopted, when a motion was made by the opponents of the amendment, to lay the resolution on the table. This motion was lost, and finally, the resolution as amended, was adopted.

Second resolution, adopted.

Third resolution, adopted.

The fourth resolution was amended by Dr. McCaw, requiring "that in those States where there are regular State Medical Societies, the delegates elected to be present at the examinations of candidates for the degree of M. D., in all the medical schools of the State, should be selected from the members of the State Society; in those States where there are no societies, the selection is to be made from members of the profession in good standing."

Dr. John L. Atlee wanted no representation of examiners from any except State Medical Societies, which would force those States where it does not now exist to organize State Medical Societies; and, therefore, he opposed the amendment, though he favored the original resolution.

Dr. Storer, of Mass., wished no restrictions to be placed on medical schools.

Dr. Mussey, of La., wanted to have a resolution passed, providing for the examination of teachers before they were elected to professorships, and to pass no men but those who were known to be favorable to the ideas of the Association regarding medical instruction.

Here a tumultuous clamor arose, during which the amendment was withdrawn, and the previous question called for and sustained; when the resolution was, upon call, again read, and finally adopted as originally reported.

The fifth resolution gave rise to a great deal of discussion as

to the propriety and the right of placing medical schools under the censorship of State Medical Societies.

Dr. Timothy Childs, of Berkshire, Mass., stated, that forty years ago he called for a board of examiners to be present at all examinations for a degree, and that he had never ceased to urge the propriety of so doing. He had never passed a student without such a supervision.

He stated that he was the first man to introduce into medical colleges a professorship on pathology, and he was always in favor of enhancing the dignity and worth of his profession; and as long as he was able to raise his voice, he would oppose to the utmost, all those who attempt to lower the standard of medical excellence, regardless of the motives that prompt them to do so.

Dr. Worthington Hooker, of New Haven, Conn., explained that Yale College, further back than forty years ago, had, of its own accord, adopted the plan contained in the resolution under consideration; and, during his connection with the college, there had not been one whisper of disapprobation regarding it. There was harmony between the State Medical Society and the institution, which feels the genial effects of that harmony, which gives it its strength and position.

He thought that all medical colleges should be closely watched by the State Medical Societies of their respective States.

The resolution was adopted.

The sixth, seventh, and eighth resolutions were adopted.

The ninth resolution was, after some little discussion, on motion, laid upon the table.

The whole report was then adopted and referred to the Committee on Publication, for publication in the forthcoming volume of Transactions.

Miscellaneous.

DISCUSSION ON IODISM BEFORE THE FRENCH ACADEMY.

BY M. VELPEAU.

"I have much used," said M. Velpeau, "preparations of iodine, internally and externally. I deem it no exaggeration to affirm that, in twenty-five years, I have administered it to from 12,000 to 15,000 patients. This number will not be considered exorbitant when it is remembered that I exhibit this medicine in the hospital and in my private practice, in the space of a year, to more than 400 persons affected with hydrocele, serous cysts, bursæ mucosæ, sinuses, sanguineous or gangrenous ulcers, etc.; also in refractory tumors, scrofulous adenitis, cancerous affections, caries, tubercular disease of the bones, etc., etc.

"I must premise these remarks by declaring that I have never observed the formidable symptoms which Mr. Rilliet and other practitioners of Geneva have described under the denomination of iodism. I have noticed in a great number of subjects, the phenomena pointed out by Lugol; irritation of the primæ viæ, coryza, obstruction of the nose, salivation; but, I repeat, never those general symptoms bordering on marasmus, never atrophy of certain glandular organs, which appear so common in Geneva. In two cases only, in a young man and women, whom I treated by iodide of potassium, I noticed rapid emaciation, but without any other injury to health. Suspension of the remedy sufficed to restore regularity of nutrition and return of flesh.

"I cannot explain the extraordinary facts pointed out by Mr. Rilliet, but I do not therefore by any means deny them. I have too much confidence in our eminent fellow-practitioner's talents of observation, not to be convinced of the reality of his assertions and of the high degree of attention to which they are entitled.

"I am less well satisfied with his interpretations. I cannot admit that constitutional iodism can be connected either with the absence of iodine in the atmosphere of Geneva; or with

the presence of goitre in the patients who came under Mr. Rilliet's observation. Might not more natural explanations be found in the doses of the medicine, in its possible adulteration, and especially in the enormous number of patients subjected to the treatment?

"I will not undertake to solve the question of the influence of doses. That iodine should occasion formidable accidents in infinitesimal doses, and should be, as it were, innocuous in enormous quantities, is a circumstance difficult to explain, in the present state of our knowledge; but it is not a fact that should surprise us, since every day the most usual agents of therapeutics afford us analogous instances. How is it that conjunctivitis is promptly cured by instilling, for four or five days, into the eye one drop of a solution of 1 gr. of nitrate of silver in 1 oz. of water? How is it that calomel, administered in very small doses, according to Law's method, and mercurial frictions on the skin, which allow but infinitely small proportions of mercury to penetrate into the circulation, produce prompt salivation? But a short time since I observed within a few hours, in a young woman, most intense stomatitis with ptyalism, which lasted ten days, in consequence of a very superficial application of the acid nitrate of mercury to an ulcer of the leg as large as a florin-piece. In presence of these facts, which are familiar to all practitioners, may it not fairly be inquired whether it might not be the same with iodine as with hydrargyric preparations?

"Secondly, I opine that the number of patients subjected to the treatment must be taken into consideration, and this Mr. Rilliet has not done. He has observed twenty-three cases of constitutional iodism, but he does not state in what proportion of patients. This is a consideration of paramount importance; for it is obvious that the result will lose much of its value and all its strangeness, if it has occurred but very seldom in the hundreds, or perhaps thousands of cases under Mr. Rilliet's care. I regret, therefore, that, instead of confining himself to the statement of gross numbers, the physicians of Geneva has not supplied us with statistics accurately recording the proportion between the patients subjected to iodic medication, and those who became affected with iodism.

"Upon the whole, the medical practitioners of Paris have never observed constitutional iodism; those of Geneva have sometimes met with it; to what is this difference referable in the mode of action of the same therapeutic agents? The explanations hitherto brought forward appear to me inadequate. It is a fair subject for study and experiment, and one I deem worthy of the attention and solicitude of the Academy."

THE LARYNGOSCOPE.

(From the Berlin correspondence Medical Times and Gazette.)

As far as I am acquainted with the periodical literature of our profession, no notice has as yet appeared in your columns or in those of your cotemporaries, with regard to the highly practical results obtained on the continent by the use of the laryngoscope.

Having had occasion to convince myself of the comparative facility with which the larynx can be explored by means of this simple contrivance, I feel confident that its importance for the diagnosis of laryngeal disease cannot be overrated, and it will be a mere truism to state that we shall be able to attack effections of the larynx with far greater discrimination and success, if the uncertainties, inseparable from a symptomatic diagnosis, can thus be replaced by the precise results which a distinct view of the affected parts must afford.

A few weeks ago I was present at a post-mortem of a phthisical individual, whose larynx had been carefully examined, a short time prior to decease, by Professor Traube. The changes found in the larynx bore testimony to the accuracy of the results obtained by laryngoscopic investigation. The following remarks on the instrument and its application, are mainly extracted from a monograph, published in the early part of the year, by Professor Czermak, who, together with Dr. Turck, of Vienna, has the great merit of having re-directed the attention of the profession to this important means of diagnosis. Indeed these Viennese physicians may be said to have re-invented the larynx-speculum. Apart from its decided practical usefulness, the fact of the laryngoscope being originally an English invention ought to stimulate English surgeons to take an active part in the reform of laryngo-pathology, to which the general application of the instrument is likely to lead.

In Liston's Practical Surgery, page 417, we read, under the head of Ulcerated Glottis, the following remarks: "A view of the parts may be sometimes obtained by means of a speculum—such a glass as is used by dentists—on a long stalk, previously dipped in hot water, introduced with its reflecting surface downward, and carried well into the fauces."

This pregnant hint of Liston's remained unnoticed till 1855, when Garcia published a most valuable series of auto-laryngoscopic investigations, instituted for the purpose of

elucidating the mechanism of the human voice. In these experiments the image of the larynx was reflected from a mirror placed against the soft palate, so as to be received upon a second mirror placed in front of the observer, (auto-laryngoscopy.) An elementary knowledge of cateptrics will suffice to explain the principles upon which Liston-Garcia's method of investigation is founded.

The examination itself is conducted in the following manner: A metallic mirror, varying in size from six to fourteen lines in diameter, in shape either square with rounded edges, as recommended by Czermak, or oval, according to Turck's proposal, or, as it has been found very convenient by Dr. Levin, of Berlin, semi-circular, with a concave inferior margin, soldered to a slightly flexible metallic handle, is to be introduced into the well-opened mouth, and fixed in such an angle against the uvula and soft palate as to throw incident luminous rays upon the larynx, and to reflect an image of the parts thus illuminated into the eye of the observer. To prevent the mirror from becoming dim by condensation of vapor upon its surface, it is necessary to warm it previous to introduction, by dipping it into hot water, or holding the unpolished surface over the flame of a small spirit lamp. Garcia made use of the direct rays of the sun in his experiments; as this source of illumination, however, is not always available, and, even if so, attended with obvious inconveniences in practice, Czermak proposes the use of a perforated concave mirror of 7—12 sec. focal distance, by which the light of an ordinary lamp can be concentrated upon the larynx-speculum, the eye of the observer being applied to the perforation. As the distinctness of the image will depend upon the brilliancy of the illumination employed, it will be found advantageous to concentrate the light of the lamp upon the concave mirror, by means of a powerful bi-convex lens. Dr. Levin, of this city, has devised a highly convenient apparatus for this purpose, consisting of a tin tube carrying a convex lens of two and a half inches focal distance, and about the same diameter, which, by means of a simple contrivance, can be fixed horizontally over an Argand lamp, after the shade has been removed.

The perforated concave reflector can either be held between the teeth of the observer, fixed on a suitable ivory handle, as recommended by Czermak, or attached to a large spectacle frame, according to Stellwag's proposal, or it can be suspended from a support screwed to the corner of the table on which the lamp is placed. The latter contrivance will be found the most

convenient for practical purposes. I think it was first introduced by Dr. Levin. *

It will be most convenient to place the lamp to the right of the patient, who is to be examined in the sitting posture, his hands resting upon his knees, his body slightly advanced and his head slightly reclining backward. According to Professor Traube's advice, the lamp, concave mirror, and larynx-speculum ought to be on the same level, and the angle formed by the rays incident upon, and reflected from, the concave mirror as acute as possible. On this account it will be wise to place the lamp a little behind the patient. The observer supports the head and chin of the patient with his left, and introduces the larynx speculum with his right hand, looking through the perforation of the concave mirror, by means of which he illuminates the pharynx.

By causing the patient to sound alternately the Roman vowels, *a. e.*, the velum and uvula will be raised so as to admit of the mirror being introduced with greater facility. In pressing the speculum against the soft palate and uvula, great care must be taken to avoid touching the posterior wall of the pharynx, the palatine arches, and the base of the tongue, to prevent the supervention of vomiting and deglutition. "In this manner," as Czermac says, "it is possible to look into the very depths of the pharynx, to obtain a distinct image of the individual parts of the larynx, and, as I first demonstrated in my own person, to see the bifurcation of the trachea reflected through the widely opened glottis, with the tracheal rings shining through the thin mucous membrane."

Of course, considerable practice and a certain amount of dexterity are required for successful handling of the laryngoscope, notwithstanding the simplicity of the principle upon which the method is founded.

The difficulties are mainly owing to the great irritability of the palate, which, in some individuals, is so considerable as not to tolerate the contact of a foreign body; others are unable to keep their mouths open for any length of time, or to command the position of the tongue, which ought to be well flattened and protruded. Some patients, as Professor Traube correctly remarks, suffer from a kind of "moral nausea," threatening to vomit as soon as they are told to open their mouths. This extreme irritability can be overcome by methodically accus-

* Mr. Yearsley has requested us to state that he has used Mr. Avery's ear lamp in this way, for several years past.—Ed.

toming the parts to the contact of foreign bodies, as it is often requisite prior to surgical operations on the palate. 'I remember reading that bromide of potash has the power of lowering the sensibility of the pharyngeal mucous membrane; it might deserve a trial in very refractory cases.

In general, however, the irritability of uvula and soft palate will be found very inconsiderable, so that they can be raised and pressed against the posterior wall of the pharynx without any inconvenience to the individual experimented upon. In Professor Traube's clinic I have seen an individual sitting for nearly ten minutes with the larynx-speculum applied to the fauces, so that fifteen medical men who were present could successively examine the reflected image of the glottis without any reflex phenomena supervening to interrupt the observations.

In this case the mouth of the patient was held open by a very convenient instrument, devised by Dr. Levin. The handle of the larynx mirror is attached by a ball-hinge to the upper bar of the mouth speculum, so as to admit of the larynx mirror being easily adjusted for the purpose of demonstration.

In the fifth chapter, Czermak details his method for obtaining a view of the posterior surface of the velum, the naso-pharyngeal cavity, etc., and he represents the image obtainable by rhinoscopic investigation, the commencement of the Eustachian tubes being also rendered visible. Wilde has already investigated the latter by a similar method.

To obtain an image of these parts, a speculum must be introduced under the velum, with its reflecting surface turned obliquely upwards, so as to illuminate the naso-pharyngeal cavity. A speculum is proposed for this purpose, to which a sliding wire-hook is attached for the purpose of raising the velum.

Examinations of this kind are, of course, surrounded by numerous difficulties, and can only be expected to succeed if a combination of favorable circumstances obtains.

The auto-laryngoscopic observations instituted by Czermak for physiological purposes, are mainly confirmative of the results obtained by Garcia's celebrated investigations, and his work will amply repay perusal to those who are interested in the important questions involved in the study of the mechanism of the human voice.

The pathological observations which conclude the work, twenty in number, illustrating most varied and interesting forms of laryngeal disease, as revealed by the larynx speculum,

are calculated to convince the most sceptical of the great advantages which must accrue to the practitioner from the adoption of this method of investigation.

The possibility of the eye serving as a guide for the hand in the topical treatment of affections of the larynx and deep parts of the pharynx, is also proved by some of these observations. You must permit me to reserve my detailed statement for a future communication. Two of these cases, the first and third, during the course of which laryngotomy had to be performed, on account of steonsis of the larynx, are of particular interest, being the first in which, by a novel adaptation of laryngoscopy, the glottis was investigated from below. This was affected by introducing a small mirror attached to a suitably bent handle, with its reflecting surface turned upward, into a fenestrated tracheotomy tube. By illuminating this speculum with a concave reflector, the most brilliant and accurate images of the lower aspect of the glottis, etc., were obtained, and the nature of the pathological changes affecting the parts clearly ascertained. This method promises to be of great importance for the diagnosis and treatment of deep-seated affections of the larynx, particularly in cases of laryngeal tumors which cannot be attacked from above. By reversing the reflecting surface of the mirror introduced into the tracheotomy tube, the deep parts of the trachea might also be explored.

EFFECTS OF DISEASE ON THE TEETH.

BY ABR. ROBERTSON, D. D. S., M. D.

In 1852, I read an essay before the American Society of Dental Surgeons, which was published in most, if not all, the dental journals of that time, and was intended to show some of the effects of carious teeth on the general health.

I now propose to consider some of the effects of impaired general health—of sickness—on the teeth, and to correct, as far as I may, what I conceive to be a very erroneous and very general impression in relation to the effects of medicines upon the teeth, when administered for the cure or for the relief of diseases.

But as it is not my province to treat the diseases here alluded

to, not being a practitioner of general medicine, I shall be obliged to rely mainly on the recorded observations of others for many facts, but whose testimony may be all the more convincing and reliable from the consideration that their observations have been made and the results recorded simply as scientific physiological facts, without reference to any preconceived theory or argument.

The dentist hears no other expression half so frequently as the following, and he always hears it so nearly in the same language as to make it seem as if stereotyped; he hears it, indeed, almost every day, and from all ranks and grades of society—from the most learned and intelligent to the most ignorant and thoughtless: "My teeth were perfectly sound until I was sick, when I took so much medicine that it destroyed them;" or, "since my health has been bad, I have taken so much medicine that it has ruined my teeth." I have known dentists, too, and some of them eminent in their calling, to tell their patients that their teeth had been ruined by taking medicines, and I believe that physicians even sometimes admit the correctness of the charge!

An expression so universal and so common as this; and the expression, I suppose, is no more common than the belief in its correctness is universal—must have some foundation, and, upon the old maxim that "what everybody says must be true," a very strong foundation. Still, paradoxical as it may seem after this admission, it is usually as wide from the facts as any expression well can be—as diametrically opposed to the truth as the old belief that the sun revolves around the earth.

This, like all other fundamental errors, is productive of great harm. It is an unmerited reproach, an ungrateful stigma, upon that most learned and generous, most brave and benevolent of professions, the medical profession, and their most comprehensive and useful art. It is also a direct injury to those who believe the sentiment. It mars their confidence in their medical advisers, and frequently deters them from, at least willingly, taking the medicines properly prescribed by them for the cure of their disease.

But do not medicines injure, and often destroy the teeth? Very rarely, if ever, when judiciously and properly taken. If medicines so rarely injure the teeth, what is the foundation of this, so universal a belief? To answer this question, and to show that medicines properly administered tend to preserve rather than to destroy the teeth, is the chief object of this monograph.

Teeth, beyond doubt, decay more rapidly and more frequently after the occasions for the taking of the medicines have occurred, than before. Why? I propose to answer this question as fully as my present means will allow, though not so fully in detail as I could wish, for want of the definite and certain knowledge that is necessary, and which, though I have sought somewhat assiduously, I have not been able to obtain. But I think, from my own observations, and such observations of others as I have been able to avail myself of, there is sufficient evidence to prove the correctness of my views by specific facts as well as on general principles.

First, we will examine the question negatively. Teeth are not destroyed by medicines.

Chemistry proves that most articles used as medicines neither have nor can have any direct action on the teeth. The only exception to this rule being the acids, and those few salts whose bases have less affinity for their acids than has the lime of which the teeth are principally composed.

Dr. A. Westcott, of Syracuse, N. Y., made a very extensive and careful series of experiments, which he published in the *American Journal of Dental Science* 1843, with the view of of ascertaining and of showing the effects of almost all articles used either as food or medicines, when brought in contact with the human teeth. They were both interesting and instructive, and worthy the perusal of both professional men and laymen.

His experiments demonstrate most conclusively what has already been stated, that but very few articles prescribed as medicines can have any effect on the teeth, even when brought into and kept in contact with the teeth, to wit: acids, ether, (these are derived from a compound of the acids and alcohol,) and such salts as have bases with less affinity for their acids than has the lime of the teeth.

When these acids are given as medicines, especially when the stronger acids are so given, as the sulphuric, nitric, or muriatic, great care should be used to prevent their coming in contact with the teeth, either by taking them through glass, gum-elastic, or other tubes, or by carefully rinsing the mouth with a solution of carbonate of soda, or some other alkali having a stronger affinity for the acid than has the lime of the teeth, or by both these means; otherwise the teeth may be injured, and, if the taking of the medicine is long continued, they may be destroyed.

In an experience now of more than twenty years of pretty active employment, I have seen, perhaps a dozen—but as I

have not kept a record of them, that may be much too high an estimate—well-marked cases of severe injury to the teeth by the use of acids given as medicines; but the use of these stronger acids is so small a part of the materia medica as to be of comparatively little importance, or at most, to account for but an exceedingly small part of the mischief that is charged to the account of taking medicine.

Of the ethers and salts above named, it is enough to say that they are but little used, and when used, in such small quantities, and their contact with the teeth is slight, and of so short duration, simply passing over them during one act of deglutition, and usually greatly diluted, or most probably, if it is the salts that are being administered, they are either given in the form of pills, or in powders, and covered by some kind of jellies or sauces, so that they do not come in contact with the teeth at all, nor are even appreciated by the taste, instead of the teeth being immersed in a considerable quantity of the medicine, and that of full strength, and there kept for at least forty-eight hours, as they were, in the shortest of Dr. Westcott's experiments, that they can have very little if any influence on the teeth; or, if even all the acid that would come in contact with the teeth during any ordinary course of medication with these substances was entirely neutralized by a single tooth, I doubt whether it would be perceptibly affected by it. Of this, at least, I am quite sure: I have no recollection of ever having seen any well-marked case, or any case, where I had any suspicion that caries of a tooth had been caused by any such remedies, except a very few cases from the free use of the nitrate of silver, and where no precautions had been used to prevent its contact with, or action upon the teeth; and in these cases it has always been used as a local application. But as many teeth, such for example as are natually frail or imperfect in their construction, or have already commenced to decay, cannot bear even slight abrasions or corrosions without endangering their usefulness, and of subjecting their possessors to suffering, rinsing the mouth with a solution of soda, after taking such medicines, or after taking lemon, citric, or other vegetable acids, would be but a prudent precaution.

There is one salt which so pre-eminently has the reputation of producing decay of the teeth more than any, or perhaps than all other medicines, that it seems to require especial notice. It is the submuriate of mercury. That this drug, given to a certain extent, and under certain circumstances, has a specific and very peculiar and deleterious action on the

"surroundings" of the teeth, and that many persons, through its agency—by its attacking and destroying the alveoli in its own peculiar, mysterious and unknown way, or by a secondary action through the system—lose their teeth, is too lamentably true; but it never causes decay of the teeth, or if it does, I have yet to see the first indication of it.

Dr. Westcott, in his experiments, found that teeth placed in a mixture of calomel and water of about the consistency of cream, and allowed to remain there for four months, came out as bright and as clean as when they were put in. And some years ago I placed one tooth, thoroughly cleansed from all foreign matter, into a vial with fifty grains of calomel mixed with about two or three fluid drachms of saliva, and at the end of six weeks no change was perceptible even by the aid of a powerful magnifying glass.

In judging of the effects likely to be produced on the teeth by the taking of medicines, any one who has read or may read the record of Dr. Westcott's experiments, should bear in mind that it would require a great many and very large doses of medicine, and the patient to be a long time in swallowing each dose, to equal one of the baths to which he subjected the teeth on which he experimented. And this other fact should also be remembered. His teeth were in a somewhat different condition from those in the mouth of a patient. They had been removed from their natural connections, and thereby deprived of whatever resistance their little vitality might have possessed. They had also, probably, been carefully cleansed from all extraneous matters before subjecting them to the tests; while teeth in the mouth have a low degree of vitality, affording them some protection, and they are also almost always more or less protected by the fatty and albuminous matter, little though it may be, which is deposited from the saliva, and which is left upon them in the mastication of food, etc., from the immediate contact of acid thus rapidly passed over them. This protection, though comparatively very small, in a single act of deglutition might be sufficient to afford them considerable, if not ample protection. *Dental Cosmos, for June*, 1860.

(To be continued.)

Nœvus Cured by Creasote.—Dr. Buzalsky reports in the *Med. Zeit.* the entire removal of a nœvus on a child's temple, by pencilling twice a day with creasote.

☞ Mr. S. H. Harding reports, in the *Lancet*, (April 21,) a case of accidental swallowing of artificial teeth, which, fortunately, passed through the alimentary canal without serious inconvenience to the patient. The following are the details of the case: Mrs. ——— swallowed a gold plate on which were three or four teeth, fixed with clasps at each end of the plate, for attachment to the adjoining teeth. One of the clasps had become bent, and formed a sharp point. Some hours afterwards she complained of severe pain in the stomach which seemed very much distended. Dr. Julius made her lie on her right side, and keep quiet. After the lapse of some hours, the pain suddenly left her, and her expression was, that "it went off with a jerk and a pop." She felt nothing more until about twenty-four hours afterwards, when she suffered severe pain in the caput coli, which persisted for some hours, and then passed off in a similar manner. The next morning Dr. Julius was hurriedly sent for, and on arriving found her in great agony, with a constant desire to pass urine and relieve the bowels. Upon passing a catheter into the rectum, he distinctly felt a hard metalic substance firmly fixed across the bowel, about two inches above the sphincter. He now introduced a three-bladed speculum and dilated the bowel as much as could be borne, and, with the aid of two pair of forceps, he brought down the sharp end of the plate, and then extracted it, with very slight injury to the mucous membrane. In a few days she was quite well; and, as Dr. Julius observes, after a good washing, used the same teeth again to assist in recruiting her strength after the painful ordeal she had passed through. The teeth swallowed were two central and two lateral incisors, with the clasp extending to the first molar. One of them had become displaced, and she neglected to have it adjusted. The consequence was they became loose, and were suddenly swallowed, clasp and all." In all accidents of this kind, the patient should partake freely of mush and milk, and such other articles of aliment as will form large and consistent stools, in order to sheath the bowels and promote the more easy passage of the foreign body through the intestinal canal.

THE HOSPITAL FOR NERVOUS DISEASES.—Dr. J. S. Ramskill has been appointed, in connection with Dr. Brown-Sequard, a Physician to the National Hospital for Paralysed and Epileptic.

SUBNITRATE OF BISMUTH, IN THE TREAMENT OF BURNS AND SCALDS.

BY T. G. RICHARDSON, M. D., ONE OF THE ATTENDING SURGEONS IN THE CHARITY HOSPITAL, AT NEW ORLEANS.

To the thousand and one local remedies resorted to by medical men, as well as non-medical persons of both sexes, in the treatment of burns and scalds, I have the temerity to add another, if, indeed, I have not been anticipated by some one else. The substance referred to is the subnitrate of bismuth, which I employed during the past winter with remarkable success in the wards of the Charity Hospital. Heretofore I was in the habit of using the white-lead and linseed oil, as recommended first by Professor Gross, in the March number of Dr. John Bell's *Medical Bulletin* for 1844, and, although I consider it far superior to any other application in common use, I am now convinced by ample experience, that the bismuth is better. I was induced to give it a trial from a consideration of its well-known effect in calming irritation, and even actual inflammation, occurring in mucous membranes, the condition of these structures under such circumstances bearing a very close analogy to that of the skin after a burn of the first or second degree.

When I first began its use, I combined it with linseed oil in such proportions as to form a consistent paint, but subsequently substituted glycerin for the oil, and I am now inclined to think that the combination can never be surpassed, since by it every local indication is fully met. To prepare it, it is only necessary to rub the bismuth in a mortar with a sufficient amount of glycerin to form a paste or thick paint, which should be applied to the affected surface by means of a camel's-hair pencil, or a mop made of soft linen. Previously, however, to making the application, the parts should, if possible, be thoroughly dried, and for this purpose it is necessary to prick with a needle or other fine instrument, any blisters that may exist, and carefully wipe the surface, by gently pressing upon it a piece of dry lint or charpie. A thick coating having then been put on, the parts should be protected from the pressure or friction of the bed-clothes by covering it with a sheet of clean carded cotton or a layer of cotton batting, which may be confined, if necessary, by a thin bandage lightly applied. In burns of the first degree, one such application will often suffice, but in those of the second degree, it may be necessary to repeat it, in part at least, from day to day, in consequence

of its disturbance and the wetting of the cotton by the subjacent discharges. The great object is to keep the denuded and tender surface entirely protected from atmospheric contact, which is especially important in the wards of hospitals where the air is always more or less loaded with noxious gases.

In slight burns of the first degree, in which there is only an erythematous inflammation without any vesication, the glycerin may be conveniently dispensed with and the dry bismuth dusted thick over the surface, in which case the watery exudations from the skin will form with it a pasty coating sufficiently protective. But still, the glycerin, possessing of itself properties powerfully soothing in their influence, should always be combined with it, unless there be some reasonable objection to its use.

The carded cotton or cotton batting I look upon as a most valuable adjuvant, and is superior to anything with which I am acquainted for warding off pressure.*—*North American Medico-Chirurgical Journal.*

MORNING SICKNESS—ITS SIGNIFICANCE AS A SYMPTOM.

BY THOMAS INMAN, M. D., LIVERPOOL.

Few, if any, understand the significance of this symptom, though all are familiar with its occurrence. A host of questions may be asked concerning it. Why are pregnant women sick? Why in the morning? Why in the early months more than the later? Why does not this phenomena attend a distended bladder, or any other cause of enlargement of the abdomen, as frequently as it attends pregnancy? Does it occur in other complaints, and what have these in common with pregnancy? What is the proximate cause—is it to be sought in the stomach itself, the brain, the uterus, or all combined?

* Since writing the above, Dr. W. Nichols, the highly accomplished House Surgeon of the Charity Hospital, has informed me that he has given the bismuth and glycerin a fair trial in a number of cases of burns under his charge, and freely accords to it all the praise which my experience has elicited in its behalf.

All pregnant women do not have it; some have it at one time, and not at another; it is rare among women in the country; and even among those who go from town, it is often found to cease, only to recur on returning to town. It is clear, then, that women are not sick because they are pregnant; something additional is required to produce the vomiting.

It is most common in the morning, yet it is not generally present so long as the recumbent position is maintained. As the brain is the organ most affected by change of posture, our attention is directed to that. Many cases are seen where vomiting occurs by assuming the erect position, and it is also a common sign of "water in the head." Few cases of this kind, however, have morning sickness; hence, a change in the cerebral circulation alone will not be sufficient to account for it.

We will next attempt to ascertain its causes by examining under what circumstances it occurs in males, children and elderly people. In several cases of men suffering under this symptom, it was the result of dyspepsia. In children, it is found as a tolerably sure indication of deficiency of digestive power in the stomach and body generally. When we inquire how much the condition of the uterus influences the vomiting, we find that it is not produced solely by enlargement of that organ, for it is not common when the womb is distended by an accumulation in consequence of an unruptured hymen; nor is it from pressure in the pelvis, either direct or indirect, for it is generally absent in ovarian dropsy: nor is it a common sign in cases of uterine tumors, etc.

From all these considerations, we may infer that "uterine sympathy" does not hold so prominent a place as the formation of a new being. Nor can we assign to either the most important rank, as neither produces this phenomenon, unless other conditions are present.

As the symptom does not occur in perfectly healthy and strong women, we infer that its occurrence depends upon some deterioration of vital power, and as this involves more or less deterioration in all the organs, we infer that in such cases there is a deficiency of vital power in the brain and stomach.

If this be true, the best remedies will be those which improve the general condition of the patient, which improve the steadiness of cerebral circulation, the tone of the stomach, and which deaden the sensibility of the organ which has been preturnaturally increased by debility. If change of air cannot be adopted, then "diminish the daily work as far as possible, and increase the power to do it."

A case is related in illustration of this view, where a *man* had morning sickness for nine months every morning, about five minutes after rising. Regarding him as suffering from debility and overwork, he was ordered a glass of milk with some rum in it, to be taken before rising. Tincture of iron, and cod-liver oil were given through the day, with a nourishing diet and rest. The treatment was highly successful, and, after some four weeks, not having had any attacks of his old trouble, he one day worked too hard, and the next morning the sickness came on, and was again speedily relieved by the same treatment.

A similar plan must be adopted for pregnant women. They should take some food before rising, and allow sufficient time for this to have its influence. Perhaps milk combined with a stimulant is preferable; or hot coffee, cocoa, or tea. Where the sickness is very distressing, champagne or sparkling gooseberry wine answer well. Throughout the day, everything in the way of work must be carefully noted, in order that the patient may not overtask her powers. In bad cases, rest in bed may become necessary for a time.

Tonics, as steel, quinia, etc., are useful; opium, from its influence on the stomach and brain, is specially advantageous.

The preceding observations go far to explain those curious cases occasionally seen, where husbands suffer from this symptom as well as their wives; their sympathy being excited, soon produces faintness and sickness of the stomach. Such an explanation, however, will not apply to a case where a lady patient seriously asserted that in two out of four pregnancies, she was first made aware of her condition by the morning sickness of her husband.—*British Medical Journal, March* 24, 1860.

TANNIN AS ANTIDOTE TO STRYCHNINE.

BY PROFESSOR KURZAC, OF VIENNA.

From want of a reliable antidote, the treatment in cases of poisoning by strychnine hitherto consisted principally in endeavoring to evacuate the poison, to combat the frightful spasmodic symptoms by narcotics, and to re-establish respi-

ration, when it finally ceased, by artificial means. Donne proposed iodine, chlorine, and bromine, as antidotes to strychnine; Garrod, Rand, Morson, and Falck recommended prepared animal charcoal; but the efficacy of these substances has been neither tested sufficiently by experiment nor proved by experience. The same is true in regard to tannin, and the astringent vegetables containing it, their infusions, decoctions, etc. Although they recommended themselves by the fact that tannin forms chemical compounds, insoluble in water, with strychnine and other poisonous alkaloids, it seemed very probable that these products might be redissolved in the stomach and intestines, and thus be rendered capable of absorption; the virtue of tannin as antidote to strychnine was, therefore, considered very doubtful.

With a view to subject this matter to a thorough examination, and to ascertain the efficacy of tannin in preventing and allaying the symptoms of poisoning by strychnine, Professor Kurzac made a series of experiments on rabbits and dogs. At the end of his interesting and highly important memoir, he states that the results of his investigation permit him to draw the following conclusions:

1. Tannin, if administered in time, is an excellent chemical antidote to strychnine.

2. The doubt, whether the precipitate formed by tannin in a solution of strychnine, although insoluble in water, would not be redissolved by the gastric and intestinal juice, and the strychnine thus reobtain its poisonous properties, is solved by these experiments on rabbits and dogs in a complete and highly gratifying manner.

3. The successful results in dogs and rabbits justify the expectation that tannin would suspend the poisonous action of strychnine also in man, even in cases where the evacuation of the tannate of strychnine, formed in the stomach, could not be accomplished.

4. These experiments show that twenty to twenty-five times the quantity of tannin is required in order to suspend the poisonous action of the strychnine. In cases of poisoning it will be, however, advisable to administer a relatively larger proportion, as a part of the antidote will be absorbed by the usual contents of the stomach, particularly by gelatin.

5. As tannin has proved to be an antidote to nitrate of strychnia, which is much more soluble in water, there is so much greater reason to hope that it will be successful in poisoning by pure strychnia which dissolves in water with much difficulty.

6. The same successful result is to be expected from its administration in poisoning by the hard and tough nux vomica, which imparts the poison to aqueous fluids, but gradually and not very rapidly.

7. Tannin is a so much more valuable antidote in poisoning by strychnine, as galls in which it is contained can be readily procured, and thus be administered without much loss of time. They are easily reduced to a powder, which is given, mixed with water. Another advantage is obtained by the vomiting which it is liable to produce. In the mean time an infusion or decoction of powdered galls may be prepared.

On an average, Turkish galls contain fifty, and the Illyrian galls twenty per cent. of tannin. At least one drachm of the former and two drachms and a half of the latter, are therefore required to neutralize one grain of strychnine introduced into the stomach, but in general, especially if there is vomiting, a much larger quantity should be administered.

8. Another readily obtained substance containing tannin is Chinese tea, the efficacy of which in poisoning by strychnine, is confirmed by our experiments. But these experiments (7 and 8) have also shown that, in a decoction of tea leaves, we cannot count upon the whole amount of tannin contained in them. In poisoning by a larger dose, it would therefore be necessary to administer so large an amount of green tea that the antidote itself might produce poisonous effects. One decigramme ($\frac{1}{8}$ grain) of nitrate of strychnine requires, as our experiments prove, ten drachms (600 grains, 40 teaspoonfuls) of green tea, which, according to Poligot's analysis, contain about fifteen grains of caffein. Tea is therefore applicable only in poisoning by smaller doses, but may otherwise be useful as adjuvant.

9. The efficacy of roasted coffee as chemical antidote to strychnine seemed to be much inferior. The amount of caffeo-tannic acid contained in coffee is, according to Payen, 3.5 to 5.0 per cent. But our experiments (9, 10, and 11) show that the decoction evidently contains a much smaller quantity of undecomposed tannic acid than this per centage would justify us in assuming. The decoction of 180 grains of roasted Cuba coffee (being adequate to 200 grains of the raw coffee, which should contain at least six grains of tannic acid) produced, according to the ninth experiment, merely a delay and diminution of the poisonous effect of 0.13 grain of nitrate of strychnine. In the tenth and eleventh experiments, 300 grains of raw coffee, which weighed, after roasting, 267 and 264 grains, and should have contained at least nine grains of

tannic acid, had furnished a decoction which, as antidote to 0.13 grain of strychnine, was nearly inert, only delaying the appearance of the symptoms for a little while.

10. From unroasted coffee, so inconsiderable an amount of tannin is extracted, by boiling, that the employment of its decoction for our purpose is out of question.

11. Oak bark (of Quercus robur and Q. pedunculata) contains, according to Gerber, 8.5 per cent. of tannic acid, and imparts it readily to aqueous fluids. It deserves attention in poisoning by strychnine so much the more, as it can be procured without much delay, especially in the country. What has been said about the administration of galls equally applies to the use of the powder and decoction of this bark.

12. On account of their frequent occurrence and the large amount of tannin they contain, we have to mention in this connection: acorns (from Quercus robur and Q. pedunculata) with 9 per cent; the bark of the horse-chestnut, with 8 per cent.; willow bark, with 5½ per cent.; and the green hull of walnuts. The radix tormentillæ, with 17 per cent.; rad. caryophyllatæ, with 31 per cent.; and rad. bistortæ, are still richer in tannin, but can rarely be procured without much loss of time.

13. The solubility of the precipitate, produced by tannin in a solution of strychnine, by acetic, citric, and tartaric acid, (vide experiments with the same,) show the necessity of avoiding vegetable acids during the treatment of poisoning by strychnine with tannic acid.

14. The same applies to the internal use of alcohol and alcoholic remedies.

15. The reported experiments on rabbits have sufficiently proved that more active voluntary movements excite the spasms usually produced by strychnia, even when they otherwise would not have made their appearance. In treating cases of poisoning by strychnine, it is therefore highly important *to prohibit, as much as possible, all voluntary movements, and to avoid violent excitement of any other kind.—Zeitschrift der K. K. Gesellschaft der Aerzte zu Wien, March* 12, 1860.

☞ We take the following, on the regimen and physical training of pugilists, from an editorial in the *London Lancet:*

"The professors of the art accord, we believe, an enlightened respect to the precepts of medicine. We are, however,

unable to describe their practice from personal experience. It is understood that the plan pursued is varied, according to the condition and requirements of the individual in training. But the general system is somewhat as follows: Diet and exercise are most scrupulously regulated. The athlete, who has, by indulgence or inaction, become too fat and short-winded, is thickly clad in woollen garments, and made to run long distances, frequently up hill, until he perspires freely. He is then carefully rubbed with coarse towels. He also takes frequent baths, so that the skin is thoroughly cleansed, and made to perform its emunctory and other functions with the greatest perfection. He is submitted to a variety of exercise, such as sparring, the use of dumb-bells, and other means calculated to increase muscular development, and expand the chest. His principal food consists of beefsteaks and mutton-chops. The steaks are well beaten to render the muscular fibre more digestible; dressed in a frying pan, diligently polished to exclude the chance of dirt, or other contamination; and cut into very thin morsels to facilitate mastication, and that minute subdivision which is conducive to perfect digestion. He is not restricted from beer, but is compelled to be moderate. Under a few weeks' subjection to this system, the puffy fellow, who could not run twenty yards without panting, nor receive a moderate blow without exhibiting bruises and extravasations, is disincumbered of all superfluous tissue, and brought into a condition capable of the greatest physical exertion and endurance. The regenerated athlete comes into the ring, exulting in muscular power and activity. Suppleness and force are revealed in every movement. You have before you the ideal of the human animal personified. Nor is the result entirely one of animal excellence. The physical qualities of man can hardly be wrought to a high pitch without also evoking some of the moral good that is in him. The training itself implies mental as well as physical discipline. For a long time the pugilist having his aim in view, possibly a bad aim, has exercised the most resolute self-denial. When he encounters his antagonist, that self-denial gives place to perfect self-control. We fear we must not divert the word chivalry from its ordinary acceptation to conflicts of this kind, but there is surely something akin to it in that unswerving and not ungenerous observance of the rules of "fair play," and that admirable command of temper under the most severe punishment, which are amongst the characteristics of the professional pugilist. Now when we remember that men and boys will quarrel and fight, it is impossible not to recognise

the utility of some standard that shall serve to control and moderate the brutal passions of combatants. This we undoubtedly see. The laws of the ring exert their sway over the whole population, and unquestionably often prevent acts of cowardice and cruelty."

IMPORTANCE OF THE FUNCTIONS OF THE SKIN

IN THE PATHOLOGY AND TREATMENT OF TUBERCULAR CONSUMPTION.

BR DR. TOULMIN, OF ST. LEONARD'S.

The proximate cause of tubercle, is, in all cases, according to Dr. Toulmin, the breathing of impure air, and air in so small a quantity as to render it impure, especially during the night. The rich being subject to phthisis as well as the poor, he drew the attention of the Harveian Society to the importance of the respiratory functions of the skin, as proved by the fact that death resulted from closing the cutaneous pores artificially by varnishing the skin of rabbits and other animals, and suggested that from the coldness of the climate and other reasons, the better classes of society did not daily wash the whole surface of their bodies, and that the debris of the cuticle and the exuvia momentarily forming on the skin rendered the surface impervious to air. In this mode the same imperfect oxygenation of the blood ensues as is produced in the poorer classes by breathing mephitic air. For the removal of this state of skin, the only means of cure is free diaphoresis by artificial heat, which softens and expels large quantities of sebaceous matter, after the surface has been washed clean with soap and water.

Novel doctrines as to the nature and treatment of phthisis were enunciated; the treatment being considered under its hygienic and medical aspects; under the former, the patient was recommended to live in a high, dry, and marine atmosphere, on the downs rather than under them; and to be in the open air, devoting himself to suitable athletic exercises.

Medically, the treatment was mainly the use of the hot-air bath, the daily anointing of the whole surface with oleaginous matter, the keeping up open counter-irritation by setons or

issues, and the use of tonics—each means of medication admirable in itself, but inefficacious if the hot-air bath, followed by aspersion of cold or tepid water should be omitted.—*Med. Times and Gazette, April*, 1860, *p.* 467.

EXPERIMENTAL PATHOLOGY—RATIONAL PRINCIPLES OF THERAPEUTICS.

Lecture xii. Delivered at the College of France, during the Winter Session, 1859–60, *by* M. Claude Bernard, *Member of the French Institute, and Professor of General Physiology at the Faculty of Sciences.*

Gentlemen—We have considered the two opposite points of view from which medical men regard the healing art; one class, as we have seen, recognize the existence of a *vis medicatrix naturæ*, or healing power in nature, to the influence of which they invariably attribute the return of the sick to health; the other class, indignantly rejecting this hypothesis ascribe the honor almost exclusively to the medical man of all the cures which happen to be effected; and these two different opinions, it is not difficult to foresee, must of necessity become apparent in practice. The partisans of the *vis medicatrix naturæ* maintain the principle of expectation, while their adversaries have recourse to a practice more or less energetic and varied.

Both parties have, to a certain extent, truth on their side; though it would be dangerous for medical men to attach themselves exclusively either to the one or to the other opinion. It is true that nature frequently exerts herself in the cure of diseases, but her efforts, often impotent and ill-directed, stand in need of the assistance of art.

It is by means of medicinal agents that man interferes, for the purpose of modifying the course of disease; it is by means of medicinal agents that he accelerates or retards its progress; it is, therefore, indispensible for every medical practitioner who desires to be unfettered by the trammels of a slavish empiricism, to ascertain their precise action, in order that he may be in a suitable position to use them when an occasion shall present itself.

But scarcely have we embarked on the consideration of

this subject, when a new question presents itself, and which it becomes our duty to solve before proceeding farther. What are medicines; and what is the difference which separates them from aliments and from poisons? On this subject the following definition is usually accepted: medicines serve to re-establish health; aliments serve to support life; poisons destroy it.

But we are evidently, in this respect, under the necessity of confining ourselves to generalities somewhat vague. Every definition which is of too precise a nature, is apt, on that very account, to become inexact. Not to spend too much time on this point, we will merely say that medicines are foreign substances, introduced into the economy there to determine such and such phenomena; it is, therefore, the nature of their action which it is our duty to specify. We see from this, that all medicines are in their nature poisons, the only difference between the two consisting in the extent of their action; for they act only in virtue of their toxic properties, being naturally substances foreign to the economy. Those substances which already exist in the physiological state in the system, are null in their effects, being neither useful or otherwise in the re-establishment of health when it is deranged.

We know, however, that chlorine, iron, phosphorus, and many other substances, for example, usually employed as medicines, already exist in the body; but they are never found there in a state similar to that in which they are exhibited as medicines. Phosphorus, in its pure state, is an energetic poison; whereas, phosphates are found in abundance in the normal condition of the body. Thus, therefore, all substances, whether medicinal or toxic, are foreign to the system, either by their nature, or in consequence of the particular form in which they are prescribed.

As the greater part of poisons belong either to the mineral or the vegetable kingdom, it is not surprising that medicine borrows the greater number of the agents it employs from the one or the other of these two. Sometimes these agents are vegetable alkaloids, sometimes they are purgative salts, sometimes they are metallic salts; now these different substances, once introduced into the economy, exercise on it a perfectly well-defined action; the salts of quinine combat the periodicity of diseases; mercurial compounds exercise a specific influence over certain virulent affections; how, then, are we to understand the *modus operandi* of each medicinal agent? For a long time it was believed that the medicinal substance, penetrating to the interior of our organs, addressed itself directly

to the morbific principle, with a view to neutralizing it; mercury addressing itself to the syphilitic virus, acids to the principle which generates scurvy, and alkalis to that on which rheumatism depends; an attempt has even been made to treat lead colic by the administration of sulphuric acid to those suffering under that affection, with a view to rendering the morbific agent insoluble, and consequently inert in the body of the tissues. These examples will suffice to enable you to understand what has been attempted to be realized by the aid of medicines.

It is easy to prove, by the simplest possible physiological notions, that this theory is altogether false. It is manifestly impossible to produce the sulphate of lead in the torrent of the circulation, and it is equally impossible to render the blood acid, for the animal dies a long time before the circulating fluid has ceased to be alkaline; in fact, in all animals, whether red or white blooded, this fluid is invariably alkaline, although it becomes acid spontaneously after death, when the sugar in it becomes changed into lactic acid.

The chemical combinations which are usually observed to take place in our laboratories, cannot be produced in the blood, but actions of a different kind are readily produced in this fluid; I allude to fermentations. Introduce yeast into the veins, and you will see alcoholic fermentation follow in spite of all the conditions inherent in the vital principle. But fermentations are not, as we know, chemical combinations; they are simply actions. Yeast does not combine with the sugar, it only decomposes it, and herein lies the secret of its poisonous action.

It will be easy to give you a still more striking example of these particular re-actions. We know that amygdaline, a substance of organic origin which is found in the bitter almond, has the property, in presence of certain ferments, of undergoing double decomposition, giving origin to glycose and hydrocyanic acid. Emulsine, the particular ferment which decomposes the amygdaline, exists in the sweet as well as in the bitter almond; but this latter alone contains the principle of amygdaline; hence the characteristic difference, which we know so well, between the odor and flavor of these two fruits, which in every other respect resemble each other.

Let us now suppose that we inject into the veins of an animal either amygdaline or emulsine separately, no accident follows; but if we inject these two substances simultaneously into the blood, at two different points, more or less distant, the one from the other, the animal almost immediately dies,

as if struck with lightning; the reaction which brings about the decomposition of the amygdaline is effected in the blood contained in the veins; prussic acid has been engendered, and its poisonous effects have not been slow in manifesting themselves. Here, then, is a reaction to which the presence of albumen, of fibrine, and other substances held in solution in the blood, have offered no obstacle—conclusive evidence that, in opposing themselves to the ordinary chemical reactions, the albuminous substances of the blood act simply in virtue of their chemical properties, and do not, in this respect, exercise any vital influence. If it were possible, by introducing into the blood certain ferments for the purpose of determining reactions of an analogous kind, but of a nature not unfavorable to health, the medical art would doubtless have availed itself of this method of action; but it is unfortunately impossible to do so in practice—in fact, ferments are not generally capable of absorption; at least, up to the present time, we do not know of any one that can be taken up by the stomach; it would be necessary to introduce them directly into the blood. The action of emulsine on amygdaline again furnishes a proof of this. Inject some amygdaline into the veins of an animal, while at the same time you introduce emulsine into the stomach, no reaction whatever takes place, for an impassable barrier opposes the passage of the emulsine into the blood. But when the two substances are simultaneously introduced into the stomach, so that they there combine, reaction follows, prussic acid is set at liberty, and the animal dies of poison. This is what takes place ninety-nine times in a hundred to those who are guilty of the imprudence of eating a large quantity of bitter almonds. If, however, half an hour should elapse between the ingestion of emulsine and that of amygdaline into the stomach of a dog, no accident is observed to take place; the ferment digested in the stomach has descended into the intestines, and has lost all its characteristic properties. We do not, up to the present moment, know any ferment susceptible of being absorbed by the digestive tube.

It is, therefore, impossible to explain the action of medicines on purely chemical grounds; an explanation has, consequently been sought for by appealing to notions borrowed from the physical sciences. It is thus, for example, that an attempt has been made to explain the action of diuretics. M. Poiseuille has proved that if distilled water flows with a given rapidity in capillary tubes, we can, without modifying the conditions of temperature or pressure, increase or diminish

the rapidity of the flow by the addition of certain substances. If, for example, we add to distilled water a small proportion of hydroclorate of ammonia, of nitrate of potash, or of some salt of iodine, the flow becomes accelerated; alcohol, the sulphate of soda, and several chlorides, produce the opposite effect of this. M. Poiseuille thought that the diuretic action of the nitrate of potash could be explained by the increased rapidity in the circulation in the capillaries of the kidneys to which it gives rise; while alcoholic intoxication could, he thought, be explained by the diminished rapidity of the cerebral circulation, and might be dissipated by the salts of ammonia, in virtue of the acceleration they produce in the movement of the blood in the capillaries. In repeating his experiments, whether on individual organs of the body or on living animals, M. Poiseuille was able to satisfy himself of the fact that the capillary circulation was influenced by sundry agents which accelerate or retard the flow of water in glass tubes.

These are not the only examples of this nature that might be cited; for instance, an attempt was made to explain the special action of purgatives, which give rise to a very abundant serous discharge from the surface of the intestines by the simple principle of endosmose; it is true the sulphate of soda, and several other saline purgatives, possess endosmotic properties in a very high degree; therefore, it cannot be denied that in many of these cases, the reasoning is somewhat specious; but there are other cases, much more numerous, where this augmentation does not hold good. Purgatives, for instance, in many cases, present but a very feeble endosmotic property, the greater part of the drastic kind being derived from the vegetable kingdom.

There is a third way in which the action of medicines may be understood, and which is more in accordance with physiology. It is admitted that there exists in each organ an elective action, which renders it more apt than the others to be influenced by certain medicinal agents. The different ways by which a substance, introduced into the economy, can escape from it, are, as we have seen, extremely variable. Well, then, medicine acts precisely on that organ by which it is eliminated. Reasoning thus supposes that the medical action is essentially different from the toxic one; such a manner of viewing the question is, however, quite erroneous, as we shall see by and by; but in order to better discuss the theory to which we have just alluded, let us proceed to consider it on scientific grounds. According to this hypothesis, the sub-

stances introduced into the economy exercise on the organs which serve for their elimination an action altogether specific, and experimental physiology furnishes us with numerous examples of this.

Ether, we know, when it penetrates, by no matter what passage, into the torrent of the circulation, escapes by the lungs; the characteristic odor of the breath proves this. Well, then, if the quantity of ether intruduced into the economy be sufficient to bring about toxic effects, we find at the autopsy traces of an action altogether local, which has been exercised on the lungs.

But, in the case of phosphorus, the fact is still more evident. It is generally by dissolving the substance in oil that we obtain it in a convenient form for injection into the veins; and when the dose is not of sufficient quantity to produce toxic effects immediately, recourse may be had to the following experiment in order to demonstrate that it is eliminated by the lungs: Place the animal in a dark room, and you will see flames escaping from the mouth and nostrils; this is the well known result of the phosphoresence of the gases given forth by the lungs. When, after having subjected the animal to this experiment, we kill it, we discover in the lungs lesions of the most serious description; everywhere their tissues are congested, and a peculiar yellow hepatization is remarked at different points.

There are, besides, several other examples of a particular action exercises by different medicinal agents on the organs which they traverse on making their escape from the economy. Almost all the secreting organs are capable of being modified in a particular way, by the action of certain substances found in their secretions. We shall content ourselves by pointing out the influence which is almost immediately exercised by cantharides on the urinary organs. We know, in fact, that such is the sensibility of the organs in this respect, that the simple application of the blister suffices, in certain subjects, to bring about a very well-marked irritation in the entire urinary apparatus. The effects of cantharides are still more marked when the substance is taken into the stomach; it then gives rise to inflammation of the bladder, and to acute nephritis, which are not unfrequently followed by the abundant production of false membranes, and in some cases by accidents of the most serious kind.

But in this entire series of phenomena we cannot recognize any other than a purely local action exercised on the particular organs affected. At the time phosphorus and sulphuretted

hydrogen traverse the lungs in making their exit from the body, it is found that they have lost nothing of their irritating properties; it is not, therefore, surprising that they develope in the center of the organ itself, which serves for their elimination, an inflammation more or less intense. The same holds good as regards cantharides; this substance in traversing the urinay apparatus, acts as a blister on the mucous membrane which lines its internal surface, and there determines acute inflammation.—*Medical Times and Gazette.*

LUNATICS IN THE GOOD OLD TIMES.

It is impossible for us to imagine the condition of lunatic asylums before the days of Pinel. Dungeons, wet and infected, without light and air, called *loges*, containing a wretched mattress, or some rotten straw strewed on the ground. Human beings, naked or covered with rags, almost always furious, chained to each other, and shut up in these abodes of desolation and misery—actual tombs, out of which they came to be carried to their last dwelling place. Their brutal keepers, selected from those who had been condemned to punishment, treated them like brutes, and used them most barbarously, abusing and ridiculing them, striking them cruelly, and continually fighting with them, throwing them their deficient and coarse food, keeping their water from them when thirsty, and their clothes when cold; exposing them to the jokes of visitors. Such were the inhabitants of Bicetre at that time—wretched beings thought incurable, abandoned by their friends, deprived of all medical treatment, pale, wasted, wallowing in their own filth, groaning under the weight of the chains which tore their wasted limbs, raving under the horrible sufferings to which they were subjected by their inhuman keepers.

Pinel.—When Pinel undertook the management of Bicetre the revolution was at its height. The notorious Couthon presided over the dreaded *Commune* of Paris, and when Pinel came to him for permission to remove the chains from the madmen, went himself the next day to the asylum, fearing lest in such an act there should be some hidden attempt against the Democratic Government. When he saw the madmen, he turned to Pinel and said: "Are you not mad

yourself, to wish to deliver these *betes feroces* from their chains?" "No," answered Pinel, "for I am certain that their chains make these wretched people thus violent." "Do as you like," said Couthon. From this time the good work commenced. The following day he removed the chains from fifty, and from thirty more a few days afterwards. The Academy of Medicine has adorned one of its rooms with a picture of this scene of humanity. Shortly after this we are told that Pinel was seized by some of the ruffians of the day, under the pretext of being an aristocrat, and hurried off "*a la lanterne;*" and that his life was saved by an old soldier, one Chevigne, whom he had delivered from his chains in the Bicetre, and who had become his servant.

Pinel states, in letters of his lately published, that he was enabled to live decently on what he obtained by the translation of English works. "At this moment," he says, "I am engaged in the translation of Cullen's Institutes of Medicine, for which I receive one thousand francs. I would give up physic altogether, if it were necessary for me to be running about all day in the streets. I wish for only a very small practice—to see little and observe much."

POSITIONS IN PARTURITION.

BY B. DOWLER, M. D.

The postures of parturient patients, and the attitudes of their assistants, as practiced a quarter of a century ago, and perhaps still in North-western Virginia, have not, so far as I know, been made public. These consist, as the sequel will show, chiefly of two groups, as witnessed during the last stage of labor—a stage easily recognized, not only by a digital examination, but by the cries or language of the patient, by her deep inspirations, with the holding of the breath, or a long breath, to give greater force to the extrusive actions of the expiratory and abdominal muscles; congestive flushings of the face, distention of the frontal, facial, and jugular veins; general muscular tention; the holding to and pulling by any thing within grasping distance during the expulsive pains, etc. These and other kindred phenomena, precursers of the

impending crisis, show that the mental and bodily strain of child-birth has arrived; the sympathies of friends and attendants are excited. All, not excepting the accoucher, wish that this stage of the labor (agony it might be called) should be completed with the utmost speed consistent with the well-being of mother and child. The fœtal head no longer recedes, but produces more or less pressure, even in the intervals of the paroxysmal throes, the unusual prolongation of which give the medical attendant a degree of uneasiness which the preceding stage, however protracted, seldom if ever excites. Hence, every facility, in anywise calculated to aid the natural forces of the patient, is put in requisition. Even the appearance of physical help, though it may be intrinsically powerless, will, if harmless in itself, be highly beneficial, from its psychial influence in inspiring courage, confidence, and hope. With this view, the following plan was often adopted, particularly in rural practice, in the country above mentioned, and it probably still prevails.

The husband is now called in, sits on a chair, his wife on his lap; his knees separated, sometimes bound with a cloth, so that this separation may be the less fatiguing; two chairs are placed before the patient, some distance apart; she places her feet, having shoes on, so as to rest upon the rounds or frames of the chairs; two female assistants sit on these chairs, causing them to be immovable during the expulsive pains, while the helpers press with one hand, or with chest, against the patient's knees; with the other hand each takes one of the patient's hands, who pulls during the pains, and also presses her feet against the chairs, and her back against her husband, her knees being supported by her assistants, the accoucher sitting before the patient and between the assistants — a most convenient attitude, should his services be required.

During the expulsive throes, and indeed, all the time of the labor, the patient takes neither the horizontal nor vertical sitting posture, but is reclined or semi-recumbent, except when, during the intervals of the pains, she rises or changes her attitude to prevent fatigue.

This plan (which owes its origin, so far as I know, to the people) appears to give the woman a complete control over all the voluntary forces auxiliary to that of the uterus itself. But it fatigues all her attendants, except the doctor, and if the labor be not rapid, the husband is the greatest sufferer, next to herself, sometimes turning pale and faint, unless relieved by some of the attendants, who are always ready to

aid in such emergencies. When the child is born, the patient is carried to bed, even though the placenta may not be delivered.

Another procedure is often adopted, by which the labor is conducted in bed. A bed is doubled up against inverted chairs, the bed being placed behind and next to the patient, a mattress being under her, upon which she rests in the half recumbent sitting posture, her feet resting against the foot-board; two sheets or towels are fastened to the two bed-posts at the foot of the bed, for her to pull by during the pains. Here, however, the foot-board is a barrier in the way of the accoucher, and to obviate this, the bed or other supports are placed against the wall, the patient lies semi-inclined across the matress, her limbs flexed, her feet resting on two chairs at the bed-side; upon the latter two assistants sit, to aid, as in the former position, the chair of the accoucher being placed between the latter, but a little in advance.

With proper arrangements, which need not be detailed further, in either of these positions the inferior limbs are flexed, the perineum and outlet unimpeded just as much as in the horizontal attitude, whether resting on the back or side, while, in the former, to use a common sense phrase of experienced matrons, the woman "helps herself" by the abdominal and expiratory muscular power to a greater extent than by simply lying down on her back. There is no more danger in the one case than in the other. In all the positions, good, bad, or indifferent, labor will "pursue the even tenor of its way" to a successful termination, with rare exceptions.

In the middle period of labor, the patient squeezes—in the last stage, pulls whatsoever she can take hold of—a mechanical advantage which she instinctively seeks, and which a physiologist of a different gender has no right to ignore or condemn as altogether superfluous. The obvious, materialistic muscular actions, both voluntary and involuntary, of parturition, afford the physiological obstetrician data illustrative of that vital and mechanical process infinitely more intelligible than the fanciful expositions of the so-called reflex actions of the "true spinal cord," or even the false.*

From a common sense point of view in the lying-in chamber, the "parturient acts," whether voluntary or involuntary, seem *direct muscular acts*, which take place about nine months after

* "The act of parturition never had been, and never could be, studied properly until the discovery of the physiology of the spinal marrow, by Dr. Marshall Hall. All the uterine motor actions are *reflex*," etc.—*W. Tyler Smith, M. D.*

conception, by primary or inherent laws of the living economy, which neither the parturient subject nor her accoucher can fathom, being ultimate, fundamental, self-evident, and not explicable by obscure language.

Neither danger to the child nor to the mother is likely to occur, whenever labor can be expedited by the natural forces of the mother; while, on the other hand, ergot, manipulations, and instrumental applications are more or less perilous to both, and, perhaps, in rare cases, the same may be said of even natural labor, when the head remains for many hours fixed or impacted in the pelvic bones, although, probably, the danger, if any, cannot be so great as is generally apprehended.

May I not here add a few words on this subject not originally intended in commencing this article? Although isolated individual experience may generally be of little import in opposition to that of the many, yet, judging from my own observations, I must say that, in cases wherein the presentation of the fœtal head is normal, or rather in that which is usually considered the most favorable position of the vertex, no danger to mother or child has resulted from severe and prolonged labor in which the child's head has rested apparently fixed low down, just within the perineum, and ready to make its exit—I say apparently fixed, because in the intervals of the pains the pressure of the head must necessarily intermit, though the head may not sensibly recede. The anatomical conformation of the mother, the position of the child, and the force of the pains being faultless, can anything be more trying to human patience and the moral sympathies, than a continuous series of pangs and disappointments, which, in rare cases, last perhaps an entire day! The accoucheur, relying upon nature, abstaining from all active or instrumental interferences, regulating the hegienic conditions of the chamber, attending to the conditions of the bladder, etc., inspiring hope, and sacrificing his valuable time, may suffer reproach, his skill being distrusted; but when a living child is born and the patient has a quick recovery, he will have an approving conscience, and may have an undamaged reputation among the judicious and right-thinking witnesses of his professional conduct. But as the world goes, glittering forceps, bloody craniotomies, and violent, quick deliveries, will usually pass for skill and superior qualifications. For the most part, the greatest use that an obstetrician can be put to, is to do nothing himself, and to prevent others from doing anything, mere placebos and "pious frauds" excepted.

Early in my professional life I had opportunities of witnessing or learning the natural history of prolonged labor, in which no active interference had taken place, in remote settlements in Harrison, Tyler and Lewis counties, Virginia, at distances sometimes more than forty miles from my residence, in Clarksburg. In some cases active labor had existed several days before my visits. In one of my first cases, I witnessed with dismay the active hard labor of a woman apparently in the last stage, the head of the child being fixed or locked during twenty-four hours after my arrival; fortunately, I had no instruments with me. The child was born alive, and the woman was wholly uninjured. I might detail other still more remarkable examples, in none of which accidents occurred. On the other hand, the unwarrantable interferences of some bold and ignorant midwives, and others, under apparently such circumstances, have resulted most deplorably, as I can testify.—*N. O. Medical and Surgical Journal.*

BROOKLYN CITY HOSPITAL.

Cases Illustrating a new and Successful Treatment of Varicose veins, by the injection of Persulphate of Iron.

BY JAMES M. MINOR, M. D., ATTENDING SURGEON.

The following cases possess the double interest of novelty and practical utility.

There are none of a similar character on record, except those in which this treatment was adopted subsequently to, and in imitation of them.

It will be observed that I have introduced a case of *aneurism*, treated with injections of the perchloride of iron, among cases of varicose veins, treated with the persulphate.

In doing so, I have violated the harmony of pathological relation, in order to illustrate the efficiency and innocuousness of the preparations of iron. The first case was in private practice, the others were treated in Hospital.

Case 1.—*Popliteal Aneurism cured by the Injection of the Perchloride of Iron.*—On the 9th day of November, 1857, I was requested by Dr. Jas. Crane to see Mrs. T. I found a small, pulsating, superficial, aneurismal sac, between the right

labium and thigh, about the diameter of a Madeira nut, and projecting about half an inch above the surface. From it projected a small nipple-like, or rather tubular, offshoot, from which, previous to its ligation by Dr. Crane, arterial blood spouted *per saltum*. Mrs. T.'s account of it was, that about seventeen years previously she had received a severe blow at that point while entering a stage-coach, from the heavy iron hook attached to one end of the "back strap" of the middle seat, causing very severe pain at the time, but of short duration. Is not absolutely sure how long she has felt pulsation, but thinks that about a year since it became very distinct, and assumed the purplish tinge it now has; pulsation was more active at every menstrual period. A careful examination, by alternate pressure upon the femoral, and at a point posterior to the sac, shows a supply trunk, probably from some one of the perforating branches of the profunda femoris in front, and the obturator behind.

Upon consultation between Drs. Crane, Isaacs, and myself, and at Dr. Isaacs' suggestion it was determined to use injections of powerful styptics. This course was adopted in view of the manifold difficulties in the way of an effort to tie the supply trunks.

There were four several attempts made, at intervals of about a week, with solutions of lactate, muriated tincture, and perchloride of iron, using at the same time Signoroni's tourniquet to control the circulation through the femoral artery, and lessen the tendency to wash away the newly-formed clot. It was impossible to exert much force in controlling the current from the obturator artery, as the finger alone could be used.

The solution of the perchloride alone sufficed, with aid of the tourniquet, and the recumbent posture, to effectually coagulate the blood and block up the sac. The pain caused by the perchloride was very severe, and continued for twelve hours, and was followed by considerable inflammatory action. It was completely successful, and Mrs. T. recovered with entire obliteration of the sac. The tourniquet was kept on for some days, being loosened at intervals, to lessen the intolerable pain caused by the pressure. The filling by granulation of the cavity left where the coagulum came away (which it did by ulceration) occupied some weeks.

The notes of this case having been lost, will account for the omission of some points of interest. They have been drawn out from memory, and by the aid of the patient.

The following cases of varicose veins, treated by the injection of persulphate of iron, occurred in the Brooklyn City

Hospital, the notes of which are furnished me by R. P. Moore, M. D., House-Surgeon.

CASE 2.—*Varicose Veins of Leg—Injection of Persulphate of Iron—Cured.*

John Towle, admitted on March 1st, 1859, (Dr. Enos on duty), with ulcer from varicose vein on leg, of five years' duration; it has healed repeatedly, but again re-opened. Ordered poultice, and rest in recumbent posture.

April 25th.—Ulcers nearly healed. Injected liquor ferri persulphat. gtt. x.*

May 2d.—Veins obliterated at point of injection; neigboring branches still viracose.

May 20th. Ulcers entirely healed, and patient permitted to go out on a pass. Returned drunk, with abrasion of newly cicatrized surface.

June 13th.—Discharged cured.

CASE 3.—*Varicose Veins of Scrotum—Injection of persulphate of Iron—Cured.*

J. T., aged 22, American, admitted under Dr. Minor, Oct. 24th 1859, with varicose condition of scrotal veins of left side. Has enjoyed very good general health. For six months past has suffered much pain from distended veins of scrotum, extending through spermatic cord to inguinal canal of that side, and also in the testicle; can obtain no relief except in recumbent posture. Ordered cathartic. Suffers with languor and debility from involuntary seminal emissions, after which the pain is much aggravated.

Oct. 28th—Injected fourdrops of a solution of persulphate of iron (fourparts of water to one of persulphate) with Pravat's syringe, as modified by Tiemann. Patient was made to stand erect in order to fill the veins, and make them more distinct and prominent—a necessary precaution in such loose tissues as are found in that region. He fainted, but was soon restored by placing him in a recumbent posture. The operation scarcely caused any pain, either at the time or subsequently. A firm coagulum was formed in thirty seconds. Ordered cloths dipped in water to the part, and recumbent posture.

Nov. 3d—The clot formed by persulph. ferri gives indications of coming away by ulceration. Has felt less pain in cord since operation; nor does he feel any pain at the point of puncture.

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* Officinal solution contains 43 per cent. of the solid persulphate.

Feb. 6th—Clot came away last night, leaving a healthy granulating surface.

26th—Discharged cured.

CASE 4.—*Varicose Veins of Scrotum—Second Injection—Cured.*

James Taylor was admitted a short time after his discharge in November last, with varicose condition of other deep scrotal veins near the cord. The veriform mass of enlarged veins around the point of former operation are entirely obliterated. Has been variously treated since second admission, but without resort to operative measures.

Feb. 14th—Veins increasing in size, attended with pain. Injected three drops of a solution of persulphate of iron in the proportion of one part persulphate to two of distilled water, followed by immediate coagulation of blood, as on former occasion, and with as little pain.

15th—Injection seems to have entirely relieved the pain in the cord, and he expresses himself as feeling better in every particular.

19th—Continues comfortable. Some pain and heat at the point of puncture, where there is an exceedingly hard and prominent tumor. Tumor is close to the cord, and seems in some measure to involve it. Seminal emissions occur at long intervals now. Cold water dressings.

26th—Clot decreasing in size, but still very hard. No appearance of ulcerating, as on former use of the persulphate.

March 1st—Tumor has steadily decreased in size; but little hardness remains. Veins completely obliterated when injected, as well as all others which were enlarged.

CASE 5.—*Varicose Veins of Leg—Injection of Persulphate of Iron—Cured.*

Carl de Buke, admitted Dec. 22d, 1859 with paronychia of left thumb. Varicose veins in left leg, which he has had for many years. Veins very much distended at one point. Owing to the size of the veins it was thought necessary to insert a larger quantity of the solution than usual.

Feb. 11th—Ten drops of a solution of the strength of one part persulphate to three of water, was used.

12th—A clot has formed, and obstructed the vein, though it does not appear to be so firm as in previous cases.

14th—Complains of pain at point of puncture, where there is a considerable swelling and redness. Apply cold lotion.

16th—Inflammation and pain subsiding. Continue lotion. No constitutional disturbance at any time.

22d—Tumor lessening in size, and redness disappearing.

March 10th—All inflammatory symptoms have subsided, and the vein is obliterated at point of operation.

CASE 6.—*Varicose Veins of Leg—Injection of Persulphate of Iron—Cured.*

James Flemming was admitted Dec. 29th, 1859, with secondary syphilis, and ulcers on right leg; has varicose veins of the same leg, which are increasing in size, and he expresses a wish to be operated on for their relief.

Feb. 11—Injected as usual, three drops of a solution of the persulphate of iron, one part to four of water. A second puncture was made below the first.

13th—Coagulum formed, but not so marked as in other cases. No inflammation about punctures.

19th—Ulcer on leg has improved rapidly since operation.

25th—Vein obliterated between points of operation.

27th—Old ulcer cicatrized, and he desires to leave the hospital. Discharged cured.

It may be desirable to state briefly, the mode of procedure in the injection of varicose veins. A Pravat's syringe as modified by Mr. Tiemann, is the instrument used. This is a very small syringe of vulcanized rubber having a small (almost capillary) canula screwed to its lower end. This canula is cut obliquely at its extremity somewhat after the manner of a pen, ending in a sharp point. The piston rod is graduated to drops, to admit of the use of any quantity, however small.

The canula being screwed on, the quantity of the solution desired to be used is drawn in through the canula, which is then plunged into the vein, the patient standing erect. The finger of an assistant is then placed upon the vein, a little above and below the point of puncture, and firm pressure made; the piston is then forced down and the fluid injected. It is important that the pressure on the cardiac side of the puncture, should be sufficient to completely stop the upward current, as otherwise portions of the clot might be carried into the circulation. The pressure need be kept up for a minute or two only.

This completes the operation. The patient is placed in the recumbent posture, and cold water dressings applied, with directions not to rise for some days. The above mode of treatment of varicose veins, would seem to promise a safe,

prompt, and painless cure, of a most uncomfortable, painful, and sometimes perilous complaint, for which, heretofore, there have been only uncertain and dangerous expedients.

The persulphate of iron, as far as heretofore used, seems to excite adhesive inflammation alone, thus avoiding that formidable affection, pyæmia; and I feel confident in recommending it to the profession, as a safe, simple, and almost certain remedy for varicose veins, and, with some qualifications, for *small* aneurisms.—*American Medical Times.*

☞ The visit of the Chicago Zouaves to our Eastern cities may properly be regarded with interest by physicians and sanitarians, as being happily adapted to awaken greater attention to the subject of physical education. Here is a company of young gentlemen, who, by strict adherence to physiological laws in all their personal habits, no less than in their special manual exercises and military evolutions, have acquired such dexterity, muscular strength, agility, and astonishing powers of physical endurance, that the press, the populace, and the military of New York, can scarcely find words to express the universal admiration and surprise which this young military corps has excited among us. How different this from the degrading engagements of acrobat showmen and the pugilists both in the results to the actors and the effects upon community! The time and means expended by these young men have amply been rewarded in the increase of enduring physical energies in their own persons, while their wonderful agility and their perfection of *physique*, as manifested in all their manœuvres, fascinate all beholders, and strongly confirm the opinion, that "the *zouave-iter in modo* is *fortiter in re*," no less for the individual man than in the active service of the military corps. Perfect ease of posture and complete command of every muscle are strikingly exhibited in every movement of these men—the well-trained muscles and healthy frame of each individual soldier happily illustrating the theory of the the effectiveness of the Zouave corps in battle—viz. complete *unity of purpose* with perfect *individuality of action*. We recommend to young men both the gymnastic training and the peculiar physical habits of these citizen soldiers, especially their rigid abstinence from all that can intoxicate.—*American Medical Times.*

Resection of the entire Radius.—Dr. Carnochan presented a patient from whom the *entire radius* had been removed for necrosis. The bone was exsected from joint to joint. The motion of the hand is almost perfect, the patient being able to write with facility and rapidity. The hand is not quite in its natural axis, as it bends a little inward, while the styloid process of the other side forms a prominent projection. Dr. Carnochan claims this as the first successful operation of this kind, and offers a premium of one hundred dollars to any one who can fairly disprove his claim. In conclusion he remarked that Dr. Gross of your city, was aware of this case, but he had chosen to omit all reference to it in his late work upon surgery.

The Death-bed of an Anatomist.—Retzius, the great Swedish anatomist, whose death was recently announced, while dying made observations on the progressing dissolution of his own body. His last words to his attendants were—"The struggle of death is hard, but it is of the highest interest to note this wrestle between life and death; now the legs are dead, now the muscles of the bowels cease their functions; the last struggle must be heavy, but for all that it is highly interesting."

Ages of Pregnant Women.—Dr. Granville, in some extensive statistics presented to the London Obstetrical Society, states that English women arrive at the culminating period of prolificacy at the age of thirty years, and French women at twenty-eight.

Maternal Influence on Fœtal Deformity.—At the last meeting of the London Obstetrical Society, Dr. Druitt, while discussing this subject, asked facetiously whether deformities of chickens could be accounted for by fright to the hen while sitting on the eggs.

It is calculated that the entire world of smokers, snuffers and chewers, consume 2,000,000 tons of tobacco annually, or 4,480,000,000 of pounds weight.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. September, 1860. NO. 9.

Original Communications.

ARTICLE 1.

CANCER OF MAMMA—OPERATION FOR.

BY T. WILKINS, M. D., VANDALIA, ILL.

On the 16th day of February, 1860, I was consulted in relation to a tumor of the left mamma. The individual, (a female) is 23 years of age, well formed, and intelligent; hair and eyes black, and the temperament appearing to consist of the bilious, nervous, sanguine, and lymphatic, one predominating over another in the order named. She has never conceived, and her menstrual periods for some months back have been irregular, both in the time of their appearance and in quantity. She has never had but little sickness of any kind, and no hereditary predisposition to scirrus could be traced.

In the left mamma the tumor had been discovered by her only about two or three months previous to examination. I found it to be of an oval form, about two inches in its short, and three inches in its long diameter. It moved freely, was rough and indurated, but there was no discoloration of the integument. The integument generally was of a healthy

color. Her general health appeared to be moderately good, but finding most of the symptoms well marked, I did not hesitate to pronounce the disease scirrus.

Treatment.—This was both external and internal. The external consisted of ground slippery-elm poultices, camphor dissolved in olive oil, camphoreted mercurial ointment, tinct. of iodine, iodine ointment, a solution of gold, &c., &c. An ointment made of spruce pine was suggested by the patient and her husband, and, as I had no objections, it was used also. This appeared to allay pain to a considerable extent, and for that purpose, at least, might be tried again.

The principal remedies used internally were mild cathartics, alterants, tonics, and sedatives; some of which were iodine, iodide of potassa, hyd. cum. creta, pulv. doveri, opium, hyoscyamus, quinine, tinct. cinchonia, and occasionally diffusible stimulants. The corrosive chloride of mercury was used in alterative doses, till its constitutional effect was perceived. This appeared to hold the growth of the tumor in check more than any remedy I used, and is worthy, I think, of some farther trial. I used also some of the preparations of iron, particularly the lactate (which was recommended by Prof. Brainard,) and, although to it I attribute the *cure* of one case of cancer in which I used this article some years since, in *this* case it appeared to do but little, if any good; the article I used, however, I did not consider good.

In the case alluded to above, of cure, I might possibly have been mistaken as to the nature of the disease. But to digress a little—let me say that there is not half the attention paid to the treatment of scirrus which should be, for the reason that most of the writers and teachers pronounce it incurable. As long as this is the case there will be no improvement made in the treatment of this formidable disease. Ague was once thought to be incurable.

To return: The tumor on the whole continued gradually to increase. Lancinating and pungent pains were often felt, which would occasionally shoot up into the axilla, and one of the axillary glands became involved. The mammary tumor grew in every direction, till nearly the whole gland was

involved, and it was close to the integument but was not quite adherent to it.

I advised extirpation with the knife from the beginning of the treatment, but it was some time before I could get the consent of my patient. After this was obtained I lost but little time, and on the 14th of April the operation was performed. An incision was extended into the axilla and the indurated axillary gland removed. But little blood was lost, and no pain experienced, the patient having been placed completely under the influence of chloroform. Considerable emesis occurred the evening and night following the operation, which was relieved by opium, brandy, and mustard to the epigastric region. It was caused, I think, by the chloroform. The shock to the system was inconsiderable.

April 16th—I visited the patient, opened and dressed the wound. Considerable suppuration had occurred, but this diminished gradually at nearly every dressing. For some time it was dressed every other day, and it healed rapidly. Two or three suspicious looking spots were well cauterized with caustic potassa, and the wound was kept from healing so rapidly by the occasional use of this article. A little while after its application it was neutralized with diluted acetic acid. The granulations, a part of the time during the treatment, were unhealthy, which condition, however, was corrected by the use of lunar caustic. During the after treatment such articles were used as appeared to be indicated, more especially tonics, stimulants, and alterants. She is now, and has been for more than a week, using sarsaparilla and iodide of potassa.

Yesterday (May 23d) I saw her. She prsents the appearance of general good health, the wound is consolidated, filled with granulations, and nearly healed up. It healed first in the axilla. Perhaps it would not be uninteresting to state that the second time of the appearances of the menses occurred a little over four weeks after the operation. The first time immediately (within a day or two) after the operation, the second just four weeks after the first.

During the whole time the diet has been nutritious, most of the time the appetite has been good, exercise has been

allowed according to ability, both in and out of doors. Yesterday she came to town, the distance being about eight miles, and the case at this time promises to be successful.

The idea of keeping the wound from healing immediately after the extirpation of a cancer is not original with me, but I think it may have a tendency to insure the cure.

July 26th, 1860—The wound has been healed up for several weeks, and the individual looks hearty and robust.

ARTICLE 2.

SYMPATHETIC OPHTHALMITIS, AND CERTAIN FORMS OF CHRONIC IRITIS.

BY E. L. HOLMES, M. D., CHICAGO.

Much has been said and written regarding the ignorance of the profession in the Theory and Practice of Ophthalmic Medicine. That criticisms of this kind are just, may be inferred not only from the character of the authors who have alluded to the subject, but also from the acknowledgments of many individual members of the profession, and from the fact that the members of medical societies seldom take interest in discussions upon affections of the eye.

It is difficult to account for the general neglect of diseases so important, since there is scarcely any organ of sense, upon the health of which every one is so dependent as upon that of the eye, and there are few affections which require more care and judgment in their treatment than those of this delicate organ.

Diseases of the eye, especially of an inflammatory character, are very common in the Northwest, which is certainly a good reason why every physician engaged in country prac-

tice, should be able to treat them with skill. It has been said, and probably with truth, that it is more important for a physician in the country than for one in the city to understand the principles of surgery. We believe it still more important for him to possess an extensive knowledge of diseases of the eye and their treatment, since there are undoubtedly more cases in most of our communities in ophthalmic than in surgical practice, which require immediate and skillful treatment. We are confident that patients with diseases of the eye are in more danger of receiving injury from the treatment of uneducated practitioners than those suffering from injuries or surgical diseases. We believe more patients are rendered miserable and helpless by ignorance in treating diseases of the eye than in treating surgical cases.

This whole subject is one of great importance and worthy the serious consideration of every thoughtful physician. It is not our purpose, however, to dwell upon it at this time. We have alluded to it because the above remarks are, perhaps, especially applicable in reference to two classes of ophthalmic diseases, to which we desire to call the attention of those members of the profession who take comparatively little interest in ophthalmology. These classes of disease have of late been investigated with much care by eminent oculists, and facts have been established in regard to them, of which every practitioner should be well informed, since he may be thus able, in a few instances, perhaps, to prevent total loss of vision—a calamity which almost invariably renders the unfortunate sufferer dependent upon friends or the public.

The two classes of diseases to which we allude are, "Sympathetic inflammation of one eye, produced by certain injuries and inflammations of the other eye," and "Chronic iritis, especially that form of it accompanied by adhesions between the iris and lens."

1. *Sympathetic Ophthalmitis.*

During the past couple of years I have examined three cases in which, a few weeks after intra-ocular inflammation

from injury had existed in one eye, the other was attacked with chronic inflammation of a similar nature, which had terminated, in spite of all treatment, with total loss of vision. At a late meeting of the Esculapian Society, held at Paris, Edgar county, I had an opportunity of listening to a verbal report of two such cases, which had fallen under the observation of Dr. S. York, some time after both eyes were seriously affected. Undoubtedly every experienced physician has either treated or observed patients who have become blind in consequence of an injury of one eye. It is unnecessary to report numerous cases, or to give a minute description of symptoms and course of the disease, since all this can be found in the works of Makenzie and other well known authors. To impress our readers, however, with an idea of the serious character of this disease, the following passages from Mackenzie may be quoted:

"Whenever I see sympathetic ophthalmitis, even in its first stage, I know that I have to contend with an affection, which, however slight its present symptoms may be, is one of the most dangerous inflammations to which the organ of vision is exposed." "I have very seldom seen an eye recover from sympathetic ophthalmitis."

It is difficult to explain why this disease, which is chiefly an inflammation of the iris and choroid, should be so much more obstinate than a similar inflammation under other circumstances.

The point of practical importance in the consideration of this subject is the treatment. Of the curative treatment of this disease I shall say a few words, in speaking of the second class of cases just mentioned.

The preventive treatment which has been found most beneficial by the most distinguished oculists of the present time, consists in the partial or total extirpation of the injured eye, *before the least symptom of inflammation has appeared in the other eye.* That this treatment is eminently successful may be inferred from the favorable manner in which it is mentioned by practical oculists. Almost every number of the London Ophthalmic Hospital Reports contains a history of

several cases. We would also refer the reader to an article on the subject in the *New York Journal of Medicine*, for May, 1859, by F. J. Bunstead, M. D., Assistant Surgeon to the New York Eye Infirmary; and especially to a paper by v. Graefe, in the "Archiv fur Ophthalmologie." The operation, it must be remembered, as regards the sound eye, is preventive rather than curative.

Although the removal of the whole or a part of the eye is usually a simple operation, it is practically attended with certain difficulties. There is invariably in the mind of every patient a great horror at the thought of having an eye "cut out." A patient will often suffer long and excruciating pain, after vision in the injured eye has been irrecoverably lost, before he will submit to its removal. So long as the other eye remains unaffected he can scarcely be persuaded that it is in danger.

Another difficulty is found in the fact that many cases of mechanical injury of an eye, finally recover after months of painful inflammation, without unpleasant symptoms in the sound eye, and that it is, in fact, impossible to foretell in what cases the sympathetic inflammation will or will not make its appearance. This doubt, expressed by a surgeon, however intelligent, will often induce the patient to defer an operation so repugnant to his feelings.

In the paper of Graefe, to which I have alluded, three classes of cases are mentioned, as being especially liable to this form of disease.

1st. When a foreign body or a dislocated and enlarged lens is a source of irritation in one eye.

2d. When internal disorganization is progressing, with increase of pressure of the fluids of the eye outwards, rendering the walls of the globe more tense than natural.

3d. When, in commencing atrophy of one eye, (from chronic inflammations of iris and choroid,) there is tenderness on pressure over the region of the ciliary processes.

Even in these cases, it is true, the sound eye will sometimes escape sympathetic ophthalmitis. Still, with all this difficulty of prognosis and with the prejudices and fears of the

patient we consider it as the duty of every surgeon in these cases where vision is lost, to advise either the total or partial extirpation of the eye, before the symptoms of disease appear in the other eye.

We believe it is better to pursue this course, even in a large number of cases where the sound eye might possibly have escaped, than to run the risk, in a single instance, of losing both eyes. In the cases of sympathetic ophthalmitis which have been reported, it has been found that the average length of time which elapses after the injury, before the other eye begins to suffer, is about five weeks; but the injured eye often remains for months affected with chronic ophthalmitis, afflicting the patient with severe pain, and unfitting him for the ordinary duties of life. An early operation would spare all this suffering, since the wound usually heals in about fifteen days.

I think any one who has had much experience in treating injuries of the eyes, must be fully convinced that many patients with penetrating wounds of the cornea and lens, attended with protrusion and inflammation of the iris and choroid, and with loss of vision, would escape much distress by resorting to the immediate removal of the anterior portion of the eye. Patients, however, will seldom submit to an operation till worn out with pain and loss of sleep, and threatened with loss of health.

The method of removing the eye, as now recommended by ophthalmic surgeons, is simple, and usually without danger. A circular incision is made through the conjunctiva, parallel to the cornea, and the recti muscles severed close to their sclerotical insertion, as in the operation for strabismus. The conjunctiva is then separated from the sclerotica and the optic nerve divided by a pair of blunt-pointed, curved scissors, passed behind the globe, when the eye can be readily removed from the orbit and the operation finished by cutting the oblique muscles. It is often advisable to enlarge the palpebral fissure by slitting the tissues at the external angle, especially when the eye is hypertrophied.

The operation, as thus performed, leaves the muscles and

nearly the whole conjunctiva, which usually heal in about a fortnight, and form a "stump" sufficient for an artificial eye. In many instances the excision of the cornea is sufficient. It is not, however, reliable, for the inflamed choroid and adjacent membranes may continue a source of irritation which can only be relieved by a total extirpation of the globe. Moreover the operation is not unfrequently followed by serious hemorrhage, since the inflammation has caused an enlargement of the vessels of the retina and charoid. The walls of these vessels, especially of the retina, are exceedingly delicate and often rupture "spontaneously" when the pressure of the humors within the globe is removed, as in excising the cornea. The operation for the extirpation of the eye is almost entirely free from this objection, as it is seldom attended with much loss of blood.

(To be continued.)

Miscellaneous.

MENTAL PECULIARITIES AND MENTAL DISORDERS OF CHILDHOOD.

BY DR. CHARLES WEST.

No one can have watched the sick bed of the child without being struck with the almost unvarying patience with which its illness is borne, and the extremity of peril from which, apparently in consequence of that patience, a complete recovery takes place. Much, indeed, is no doubt owing to the activity of the reparative powers in early life, but much also to the unruffled quiet of the mind. No sorrow for the past, no gloomy foreboding of the future, no remorse, disappointment, nor anxiety depresses the spirits and enfeebles the vital

powers. The prospect of death, even when its approach is realized, and this is not so rare as some may imagine, brings in general but small alarm; it may be from the vagueness of the child's ideas; it may be, as the poet says, that in his short life's history "the heaven that lies about us in our infancy" has been so much within him, that he recognizes again more clearly than we can do—

> "The glories he hath known,
> And that imperial palace whence he came."

I refer to this, gentlemen, because the truth is one which has its practical side; because to keep the sick child happy, to remove from it all avoidable causes of alarm, of suffering, of discomfort, to modify our treatment so as to escape a possible struggle with his waywardness; and even, if death seems likely to occur, to look at it from a child's point of view, not from that which our larger understanding of good and evil suggests to our own minds, are duties of the gravest kind, which weigh on the physician, on the parent, on the nurse; and which it behooves to remember none the less, because they are not dwelt on in the lecture room, or in the medical treatise.

But not only does the child live in the present far more exclusively than is possible for the adult, but there are, besides, other important points of mental difference between the two which have a serious influence on the manifestations of disease, and also on our treatment of it. The mind of the child is not merely feebler in all respects than that of the adult, but in proportion to the feebleness of his reasoning powers, there is an exaggerated activity of his perceptive faculties, a vividness of his imagination. The child lives at first in the external world, as if it were a part of himself, or he a part of it, and the glad-heartedness which it rejoices us to see is as much a consequence of the vividness with which he realizes the things around him, as of the absence of care to which it is often attributed. This peculiarity shows itself in the dreams of childhood, which exceed in the distinctness of their images those which come in later life, and shows itself, too, in the frequency with which, even when awake, the active organs perceive unreal sounds, or conjure up at night ocular spectra; and these not merely colors but distinct shapes, which pass in long procession before the eyes. This power fades away with advancing life, until, except under some condition of disease, the occasional appearance of luminous objects in the dark, remains the only relic of this gift of seeing visions, with which, in some slight degree, at least, most of us were endowed

in our early years. The child who dreads to be alone, and asserts that he hears sounds or perceives objects, is not expressing merely a vague apprehension of some unknown danger, but often tells a literal truth. The sounds have been heard. In the stillness of its nursery the little one has listened to what seemed a voice calling it; or, in the dark, phantasms have risen before its eyes, and the agony of terror with which it calls for a light, or begs for mother's presence, betrays an impression far too real to be explained away, or to be suitably met by hard words or unkind treatment.

Impressions such as these are common in childhood even during health. Disorder, direct or indirect, of the cerebral functions, more commonly the latter, greatly exaggerates them. The minor degrees of somnambulism, such as getting out of bed while asleep, are by no means uncommon in childhood, and even more frequent are those attacks of night-terrors, in which, after a short doze, the child awakes in a state of intense alarm, with the distinct vision before it of some frightful object, which does not disasappear for some minutes, and which returns sometimes the same night, sometimes the succeeding one, with just the same appearance as before.

It follows, then, that the circumstances which surround a child whether in sickness or in health, are of far more importance than are those about the adult; and that their influence for good or for harm, is far more powerful, and is never to be lost sight of in the treatment of the diseases of early life.

But while the child lives thus in the present, and while this present is but the reflection of the world around, its impressions uncontrolled by experience, ungoverned by reason, the moral qualities are not in the same undeveloped state as the intellectual powers. The child loves intensely, or dislikes strongly; craves most earnestly for sympathy, clings most tenaciously to the stronger, better, higher, around it, or to what it fancies so; or shrinks in often causeless, but uncon querable dread, from things or persons that have made on it an unpleasant impression. Reason as yet does not govern its caprices, nor the more intelligent selfishness of later years hinder their manifestation. The waywardness of the most willful child is determined by some cause near at hand; and he who loves children and can read their thoughts, will not, in general, be long in discovering their motives and seeing through their conduct.

One word more I have to say with reference to that intense craving for sympathy so characterestic of the child. It is this

which often underlies the disposition to exaggerate its ailments, or even to feign such as do not exist, and in which attempts at deception it often persists with almost incredible resolution. Over and over again I have met with instances, both in private and hospital practice, where the motives for such deception were neither the increase of comfort nor the gratification of mere indolence, but the monopolizing the love and sympathy which, during some by-gone illness, had been extended to it, and which it could not bear to share again with its brothers and sisters. This feeling, too, sometimes becomes quite uncontrollable, and then the child needs as much care and as judicious management, both bodily and mental, to bring it back to health, as would be called for in the case of some adult hypochondriac or monomaniac.

These mental peculiarities of early life may seem at first to have little to do with the cure of disease; but in reality you will find that this is not so; but that in proportion as you make them your study, and as you become able, in consequence, to sympathise more completely with your patient, will your diagnosis, in many instances, be more accurate, and your treatment more successful.

This brief sketch must suffice for the first part of my subject, and will, I trust, have prepared you for the better examination of the second, namely, the influence of disease upon the mind in early life. This shows itself either in weakening of the perceptive powers or in altering and perverting the moral faculties. Of these, sometimes the one, sometimes the other, is the more obvious, though it is very rarely that either exists absolutely alone.

As in diseases of the body, so in the affections of the mind, in early life, the power of repair furnishes us with a constant ground for hopefulness, which we should be less warranted in indulging in the case of an adult. The dullness, the apathy, the cerebral disturbance, which accompany the diseases of early childhood, have therefore by no means so grave an import as we should be compelled to attach to them, if present to the same extent at a more advanced age. The whole of the child's intellectual energy is expended on his commerce with the world around him; his relations to it are disturbed; night terrors, bad dreams, distressful phantasms, betoken this; or the ear is pained by sounds, and the eye by light,—not because the organs of sight or of hearing are specially disordered, or the brain is specially affected, but because, with the limited mental endowments of the child, such are the only ways in which their sympathetic disorder can manifest itself.

Or the disease has passed away; the active, intelligent, observant child is left dull, takes no interest in what goes on around him, forgets his prattle, seems scarcely to know the simplest word, though before he spoke fluently. This, again, need not cause too much apprehension. The child's memory is feeble; during the protracted illness, the customary impressions were no longer made upon his senses in the sick room, or they passed unnoticed in the unconsciousness of fever; so that, when recovery takes place, the lesson has to be learnt again, and learnt with faculties weakened by the by-gone ailment. For this you must be prepared, and prepared also for the very gradual process, extending sometimes over months or years, by which the ground lost is made good again: the time occupied by it being in general all the longer, in proportion as the child was younger when the original attack of illness came on. The infant of eight months old will show for months no ray of dawning intelligence; the little one just beginning to speak, will remain silent for months; while the child of four or five years will generally in a few weeks regain his forgotten lore. Simple as all this seems to be, and really is, it yet is not always borne sufficiently in mind; and these hints may enable you to save your patient's friends from much needless anxiety.

There is a caution, however, not to be lost sight of in these cases; namely, that protracted illness, even when unaccompanied by evidence of serious disorder of the brain, is sometimes succeeded by permanent impairment of the sense of hearing, and that the child's dullness may be the result of the loss of the power of receiving impressions, through one most important medium, from the external world.

A little girl, two years and nine months old, was attacked at the age of one year and nine months, by what was said to have been inflammation of the lungs, though it is uncertain whether or no a convulsion occurred at the outset. She got well without any other sign of cerebral disturbance having manifested itself. Before the illness she was beginning to talk, used to call her father, and to say many little words, but since then she had not spoken at all. The question raised was, whether the silence and some strange ways, different from the child's previous manner, were indicative of disease of the brain and of incipient idiotcy, or were merely the results of her loss of hearing. I took the child into the hospital for a time to watch her; her intelligent countenance and strangely earnest manner showed almost at once that her intellect was acute enough. A very few days' observation

confirmed this impression; the child was dumb because she had become deaf, and her speech had ceased so soon, because the progress she had made at the time when illness first overtook her was so small.

If the same accident occurs somewhat later in life, when the child has learned to speak pretty well, its nature is more likely to be misunderstood, for the child does not all at once forget to talk, but speaks imperfectly, with gradually lessening distinctness; and forgetting first some words, then others, her condition more nearly resembles one of imbecility; and unless special care be taken to test the powers of hearing, error is very likely to be committed. I confess I made this mistake myself in the case of a little girl four years and seven months old, whom I first saw a year after an attack of a somewhat ill-defined febrile character, accompanied by a comatose condition, which lasted for several days, and left her in a state of great weakness. Though she regained strength, it yet was a long time before she tried to speak again; and when she did, her articulation was very indistinct. In the course of time she seemed as strong as ever, and her intelligence appeared not deficient, but her utterance grew more and more indistinct; she became flushed, angry and excited, and made inarticulate noises when she could not obtain what she wished, and when I first saw her she had for some time ceased to talk. Her altered temper, her fits of passion, the inarticulate sounds which had taken the place of speech, suggested the idea that idiotcy was supervening on the disorder of the brain, which had formed so marked a feature of her illness. In a short time, however, careful observation ascertained that speech had ceased, because the sense of hearing first had failed; that the case was one for the deaf and dumb school, not for an idiot asylum.

The arrest of development, or the positive retrocession of the mental faculties in childhood may be regarded almost invariably as of far less serious import than any manifest perversion of the moral powers. The child who, in spite of intellectual dullness, attaches itself to those about it, and manifests the ordinary childish feelings, is not one concerning whom there is any occasion to despair, or whom judicious training will not do very much to improve. Several circumstances influence the degree of dulling of the mental powers and are to be taken into consideration in forming an estimate of the child's condition, and his capabilities of improvement. In proportion as the original illness was accompanied with convulsions or serious cerebral disturbance, will the subse-

quent impairment of the intellectual powers be profound, and their recovery slow in taking place. In proportion, too, to the early age at which such illness occurred, will its results be serious; and this not necessarily owing to the gravity of the mischief, but owing to the low state of attainment to which the child had reached when its further advance was interrupted. Thus, for instance, the apparent obscuration of intellect will be greater if it had overtaken the child before it had learnt to speak, than if it had come on later; and though not the less teachable, yet more will remain to be taught in the former case than in the latter; and a child, perfectly capable of improvement, may be passed over as utterly destitute of all capability of intellectual progress, owing to the age at which disease overtook it not being borne in mind. Lastly, it must be remembered that a very large number of children, whose intellectual progress had been arrested at an early age, are allowed to grow up for years without and culture whatever and that as much of their apparent dullness may be due to unintentional neglect as to actual disability.—*Extract from a Clinical Lecture at the London Hospital for Children.*

EFFECTS OF DISEASE ON THE TEETH.

BY ABR. ROBERTSON, D. D. S., M. D.

(Concluded.)

The general rule, then, is that medicines do not injure the teeth—the rare exceptions proving the rule that they may sometimes do so; and the just inference is, that where this may be the case, care should be used so to administer such medicines as most effectually to prevent it.

The question now recurs, why do teeth decay more frequently and more rapidly during the sickness than at other times?

For the better elucidation of this question, it becomes necessary to inquire what is sickness? I here use this word as a general term for all kinds of diseases. What are its causes? How do the causes act to produce it, and what are some of its effects?

For our present purpose it may be enough to say, that

disease or sickness is any disturbance or interruption of all or any of the functions of the living body.

The principal recognized causes of these interruptions and changes of the functions which constitute disease, are indigestible and all the various unwholesome and improper articles of food; malaria, appreciable or unappreciable; sudden changes of temperature; great changes of the state of the atmosphere, electrical and hygrometrical; various emotions of the mind, as grief, fear, anger, and the like; and various viruses and other poisons.

They act upon the system chiefly, if not entirely, in two ways: either by directly mixing with and altering the composition of the blood, as where virus is directly introduced into that fluid; or by some shock or irritation of the nervous system.

The most uniformly observable manner, if not an invariable mode in which all these agencies affect the functions of the living body, is by altering the various secretions. The sweat, the urine, the bile, the gastric and pancreatic fluids, the saliva and the milk, some or all of them have been found more or less altered in most diseases; and the blood, from which all the secretions are derived, is supposed by many always to be changed in disease. It is at least evident that shocks to the nervous system, from purely mental causes, sometimes most wonderfully affect the secretions. Repeated instances have been recorded where a fit of anger has produced such a change in the milk of mothers as to cause the death of their infants in a very short time after partaking of it. I have seen a most obstinate and intractable diarrhœa produced by sudden and excessive grief, causing primarily great acidity of the stomach, and this acid acting most markedly and unmistakably as an irritant on the bowels. But as it is the saliva only—including, of course, the secretions of the salivary glands and buccal mucous membranes—that comes in contact with the teeth, or at most, that remains in contact with them, we shall confine our present inquiries to the changes that have been observed in that secretion; and after remarking that for many years I have observed that confirmed dyspetics almost uniformly have bad teeth, and that their teeth are decayed in so peculiar a manner that I can almost unvaryingly diagnose dyspepsia by an examination of the teeth—(to this I will refer again before closing)—I shall, therefore, quote somewhat freely what has been recorded by others, of the changes produced in that secretion by various diseases.

Muller's Elements of Physiology, page 362, says: "The testimony of many physiologists is, that the saliva is alkaline, but that it may vary from alkaline to acid under many and trifling circumstances."

Lehmann's Chemical Physiology says: "The secretion of the oral mucous membrane has an alkaline reaction. Human mixed saliva, [secretion of the salivary glands and buccal mucous mmbrane] "in an abnormal state has an acid reaction, and commonly in a fasting state. It is most commonly found acid in irritations of the primæ viæ."

Carpenter's Physiology, fifth American edition, page 412, says: "The reaction of the saliva is usually alkaline, that of the principal gland being always so in health; while that of the buccal mucous membrane is acid; so that when the former predominates, as is always the case when food is being masticated and digested, the saliva of the mouth is alkaline, while when the latter is more abundant as is often the case during the interval of digestion, at the slow rate at which the salivary glandulæ then pour forth their product, the buccal saliva is frequently acid."

Simon's Chemistry of Man says, page 295, of human saliva: "When perfectly normal its reaction is alkaline;" also, page 301, *ibid.:* morbid saliva sometimes cantains free acids; this is most commonly lactic acid, but in some cases acetic acid is likewise present. I have frequently found acid in acute rheumatism and in cases of salivation. According to Donne the saliva has an acid reaction in all cases of irritation and inflammation of the stomach, in pleuritis, encephalitis, intermittent fever, acute rheumatism, uterine affections, and amenorrhœa. Brugatelli detected oxalic acid in the saliva of a phthisical patient.

Draper's Physiology says, page 44, that "the saliva is alkaline; but in morbid conditions, an acid reaction is by no means infrequent; it has commonly been observed in intestinal inflammation, acute rheumatism, intermittent fevers."

Thus the testimony of physiologists is unanimous and conclusive that the saliva, under various circumstances, and in many if not most diseases, is changed from its normal alkaline to an acid reaction. Some of them state, as we have seen, that the saliva is usually acid during fasting. This condition usually occurs, to a very great extent, in most cases of sickness of such severity as to require continued active medication.

While, then, the patient is sick enough to require medical treatment, whether from the direct effect of the disease in

altering the secretions, or from the fasting consequent upon the sickness producing that effect, or both, his teeth are constantly bathed in almost the only kind of article that has, or can have, any deleterious effect upon them.

Although this acidity may be but slight in degree, it is frequently long-continued and constant, and therefore produces and must produce serious effects; and to my mind, both from theory and long-continued observation, is satisfactory and conclusive cause for the excessive ravages of caries of the teeth during sickness.

But how, I may be asked, does it especially manifest its effects?

Let us take as an example a case of dyspepsia already alluded to, especially as the effects are usually more distinctly marked than in any other kind of disease. For here the acidity of the oral secretions is generally most excessive; and, besides this, such patients are peculiarly liable to great acidity of the gastric secretions, and this they frequently regurgitate into the mouth, and often so strongly acid as to produce at the time a very sensible and disagreeable effect upon the teeth—or what is popularly called "setting the teeth on edge." In such cases, as might be expected, the teeth, if perfectly formed and sound before, will be found most decayed about their necks, that is, just at the margins of the gums; for there in such cases this acid finds most ready lodgment, and is kept most constantly in contact with the tooth; and there, too, the enamel is thinnest, and, therefore, affords the least protection to the body of the tooth; and there, consequently, what enamel there is, will be found to be removed in large patches from many and even all of the teeth, and frequently softened and rendered friable to a much greater extent. If the teeth are already decayed, if even so slightly as to be unobserved by non-professional eyes, or if they have the least imperfections in their formation, as very frequently happens, a want of perfect union of the enamel at the lines of union of that substance from the different points of its deposit, though these unprotected interstices may be ever so small, even so slight as scarcely to show the finest dark-colored lines, they afford similar lodgment for this acid, and also a most favorable opportunity for its fullest and most ready action, and often producing, as every dentist must have seen, whether he recognized the cause or not, most disastrous consequences.

So, too, in all other diseases which change the saliva from an alkaline to an acid reaction, this effect is produced on the

teeth in the same manner, and to an extent just in proportion as the saliva is rendered more or less acid, and to the length of time that such change continues.

From these facts, then, we may fairly deduce this rule: Most diseases injuriously affect the teeth; while the exception is that some may not.

What has been said thus far of the agency of diseases in causing decay of the teeth relates to adult life, or at least to their effects upon the teeth after they have erupted through the gums. But there is another time and manner in which diseases most seriously affect the teeth. This is during adolescence—while the teeth are in a state of formation within the gums, where no medicine can act directly upon or come in contact with them. Thus, any disease at this stage of life which interrupts or suspends the functions of nutrition may prevent them from receiving a sufficient supply of the appropriate materials for their full and perfect development. From this cause I have seen a whole set of teeth, otherwise well enough formed, with only the slightest traces of enamel upon them; and it is not very uncommon to see teeth where there is but very little enamel on or near their cutting edges or grinding surfaces, where higher up on the crowns of the same teeth it is of normal quantity and quality, showing that the process of nutrition or of supply had from some cause, for a time, been suspended, and afterwards restored. This effect is also made manifest by the frequent observation that some of the teeth of the same individual may be found decayed or imperfect in their construction, while the others are sound and perfect—the decayed or imperfect ones and the sound being in pairs, and of the same class, showing that the same cause that acted deleteriously on one, had the same action on the others that were in the same stage of their formative process. So true is this that I have often been able to diagnose at what age of the individual a previous "fit of sickness" had taken place, without any previous knowledge of the facts, and by simply observing in what part of the mouth such decayed teeth were situated.

Having now shown that medicines, judiciously exhibited and properly administered, do not, and generally cannot, injure the teeth, and that many if not most diseases do, and of necessity must injure them more or less, I cannot refrain from adding that the injudicious exhibition and improper administration of medicines, and more especially the drenching themselves with quack nostrums, to which our people are so strangely prone, as uniformly do and must produce ill

effects on these organs. And so, too, and in the same manner, may the eating of candies, or of sugar, or of the very staff of life, bread, or the drinking of pure cold water; *i. e.*, by the taking of them at such improper times and in such improper quantities, and at such irregular intervals as to disturb the functions of the stomach and nervous system; thus injuring the health and changing the character of the secretions. Hence, a safe general rule in relation to quack nostrums is, that any time is an improper time, and any quantity is an improper quantity. And this is true at all stages of existence, from earliest youth to decrepit age. But medicines, when so administered as to secure the object for which they are given—the restoration of the secretions from an abnormal to their normal condition, the restoration of the body from disease to health—instead of injuring the teeth, protect them from injury.

IODIDE OF POTASSIUM IN DISEASES OF THE BRAIN IN CHILDREN.

BY DR. JOHN COLDSTREAM.

Twenty years ago iodide of potassium was recommended by Roeser, as a remedy of special power in hydrocephalus, and since this time Drs. Risdon, Bennett, Copland, Evanson, Maunsell, Willshire, West, Wood, of Philadelphia and others, have added their testimony as to the value of this medicine in this and analogous cases.

"My own experience," writes Dr. Coldstream, "has gradually led me, for a considerable time past, to its employment, almost exclusively, in the treatment of those numerous ailments of children, which we cannot but regard as indicative of a tendency to hydrocephalus. In all cases in which, from the course of symptoms, I have reason to believe that the central organs of the nervous system, or their envelopes, are affected with strumous inflammation, (tubercular cerebritis, or meningitis,) or its consequences, after moderate purging, and perhaps application of leeches to the head, I am in the habit of prescribing the iodide, in doses of from half a grain to three grains, every three or four hours, generally dissolved in

some carminative water, and continuing it in doses, varied according to the symptoms, for many days, or even until convalescence is fully established; and I am quite satisfied that, under this treatment, with the occasional addition of blisters to the shaven scalp, I have seen far more prompt and decided effect produced upon the disease than I used to see under the old treatment.

"When opportunities have been afforded of commencing the use of the iodide early, it has appeared in several cases to arrest the progress of the disease rapidly, so that the formidable effects of effusion, indicated by squinting and convulsions, have not supervened. In less favorable circumstances, in cases where considerable prostration had succeeded to great febrile action, and in which starting and squinting had become prominent symptoms, I have seen, in not a few instances, the free use of iodide of potassium followed by amendment and complete recovery. In such cases, and in others still further advanced, I have given larger doses, even to the extent of four grains, several times a day, to children of from four to eight years of age.

"The medicine is very seldom refused by the patient, and I cannot say that I have ever seen it either increase the nausea that so frequently exists in the earlier stages of the disease, or produce any other untoward effect; especially have I have never seen it induce salivation, which the drug sometimes seems to cause when given for other ailments.

"It seems generally to act upon the kidneys; yet I cannot say that the amount of relief to the head symptoms bears any very obvious relation to the quantity of urine excreted.

"Although I have no doubt that the iodide is more especially useful in cases where there exists more or less of the scrofulous diathesis, I have often used it with satisfaction in patients apparently free from all such taint; even in cases where the ailment seemed to have followed injury from external violence, as so often happens in young children. I am not prepared, however, to assert that the iodide is more useful than calomel in *all* cases of inflammation of the brain and its appendages. When we have to treat robust and full-blooded children, in whom there is good reason to believe that the threatened disease of the nervous system stands more or less directly connected with preceding disorder of the digestive organs, I have no doubt of the superior efficacy of the mercurial treatment, combined with antimonials and salines; but when, after having duly administered these, symptoms of

cerebral disorder continue, I would have recourse to the use of the iodide.

"In cases of convulsions from teething, which, amongst ill-fed children, living in badly aired localities, are not unfrequently followed by hydrocephalus, I have used the medicine with much satisfaction.

"I have occasionally employed the proto-ioduret of mercury, as advised by Evanson and Maunsell, but not with more obvious benefit than I have been accustomed to see resulting from the use of the iodide of potassium. During convalescence, I generally prescribe the iodide of iron; sometimes a vegetable tonic, combined with the iodide of potassium.

"In several cases of recovery from severe attacks of meningitis, it has occurred to me to find the mental powers of the little patients considerably impaired. This result has occasionally been protracted for many years, and seems likely to prove permanent; but generally it has become less apparent, and ultimately passed off entirely.

"In thus endeavoring to recall attention to what I believe to be a truly valuable agent in the treatment of a class of formidable diseases, I would not overlook the fact, that all past experience tends to assure us that a great majority of cases of disease of the brain in early life, prove fatal under all kinds of treatment. In advanced stages of the tubercular forms of these diseases, we may not yet venture to hope for any great advantage in the use of the iodide of potassium. But I am disposed to agree with Drs. Copland, Willshire, and West, in believing that they may be cut short, if subjected to treatment in an early stage, more frequently than is generally imagined. My own experience leads me to regard the iodide as more likely than any other drug to promote the desired end; and my confidence in it, as *the* remedy best adapted to all stages of the tubercular diseases of the head, is so strong, that whatever else might be done, or left undone, I would persevere in administering it, even in circumstances the most desperate."—*Edinburgh Medical Journal, Dec.* 1859.

☞ Lord Bacon remarked: "Certainly every medicine is an innovation, and he that will not apply new remedies must expect new evils, for time is the greatest innovation; and if time, of course, alter all things for the worse, and wisdom and counsel shall not alter them for the better, where shall be the end?"

OBSERVATIONS ON REVACCINATION.

BY MM. VLEMINCKX AND MARINUS.

M. Vleminckx detailed to the Belgian Academy of Medicine the results of the revaccinations which had been put into force at the prisons of Ghent and Vilvorde, the subjects together amounting to 1660. Of these, 379, or 16 per cent., were vaccinated with success. Of the 1660 there were in 716 manifest traces of a prior vaccination, and 471 exhibited marks of small-pox. Of the 716, 115, or 16 per cent., and of the 471, 220, or 46 per cent., were vaccinated with success. The author's conclusions, from these and other cases, which he has brought before the Academy on former occasions, are as follows:

1. Revaccination of subjects who have been well vaccinated, produces generally but very few useful effects.
2. Persons who have been the subjects of variola have much more cause to be revaccinated than those who have undergone proper vaccination.
3. Revaccination is successful in proportion to the length of time which has elapsed since the first vaccination or the attack of variola.
4. Until the age of twenty-five it is generally useless.
5. From that age to thirty-five it gives rise to useful results in a certain number of individuals, but this number is so extremely small, that, without proscribing it in such persons, it need not be warmly recommended to them.
6. After thirty-five it becomes a sure preservative, and consequently necessary.
7. Its failure at one period furnishes no reason for not having recourse to it at other epochs, as there is no reason to suppose that the receptivity may not return between the one and the other operation.
8. Revaccination of pupils in schools and colleges is useless, as is also the case with revaccination of soldiers in armies constituted as the Belgian.

M. Armieux also submitted to the Academy an account of revaccinations he had performed in the 25th regiment of the French line, stationed at Rome. The revaccinations amounted to 2021, of which number one-third succeeded. He found that when the virus was taken direct from the arm of healthy infants more than one-half the cases succeeded, while when it was taken from the arm of the adult, less than one-fourth of

the cases succeeded. He feels convinced that the virus becomes enfeebled in energy in the adult, and is unsuited for the certain propagation of vaccination. He has also found that virus preserved under glass, or in glass tubes, to be of very uncertain efficacy, and sometimes quite inert. Contrary to most observers, he states that no age is refractory to re-vaccination, which succeeds equally well in youth as in riper age, his experience, however, with regard to the young being derived from a regiment, is necessarily very limited. Of the whole 2021 revaccinations, success was complete in 670, doubtful in 86, and wanting in 1254. With regard to prior vaccination, 1478 soldiers had been vaccinated in childhood, or for more than ten years, and had not suffered from variola. In these the revaccination succeeded in 505, 34 per cent., was doubtful in 62, and failed in 912. In 145 instances the subjects had not been vaccinated, but had had variola, and in these revaccination was successful in 58, doubtful in 4, and failed in 83. For six months after this revaccination, a considerable epidemic of variola prevailed in Rome, but throughout the regiment of more than 2000 men, only 8 cases of very benign variola, or varioloid, occurred. These 8 individuals had been successfully vaccinated in childhood; but, with the exception of one, they had either not been revaccinated or had been so without success.

M. Marinus observes that the conclusions M. Vleminckx arrives at in the paper we have referred to, are quite opposed to all former experience of vaccinators: and, without doubting the accuracy of the statements made, he thinks that until further investigations can be entered into they must be received as quite exceptional. It may be even worthy of consideration whether the prison life of the subject forming the material of M. Vleminckx's experiments, have not favored receptivity at a more advanced age. In the mean time, awaiting the period when the question is to be brought before the Academy for full discussion, M. Marinus passes in review the various statistical proofs of the decay of the protective power of vaccination, and the efficacy of revaccination. The conclusions he comes to, from a great mass of figures, are:

1. That the preservative power of vaccination is of a true efficacy during the first ten years, and then goes on diminishing to the twenty-fifth or thirtieth year.

2. That the same law applies with respect to the preservation from variola by a first attack of this.

3. That the receptivity for a second vaccination is never greater than between the tenth and thirty-fifth year after the

first, this being the period when revaccination has best succeeded, both in those who have been previously vaccinated, and in those who have had variola. This is, then, the period during which its performance is essential; and after this epoch of life has been passed, although revaccination may still prove useful, it need not be too warmly recommended.—*Medical Times and Gazette, Feb.* 8, 1860.

EXTIRPATION OF GLANDULA PAROTIDEA.

BY GERHARD PAOLI, M. D., CHICAGO.

Dr. Deville, of this city, called a public meeting, and through the city papers invited all medical men to listen to a lecture, to be delivered by himself, upon the Parotid Gland. The lecture seemed to be particularly intended to confute Dr. Brainard, who published, in his *Medical Journal* of December last, a very interesting original communication on this subject, wherein he plainly proved that he had several times removed the parotid gland. Dr. Deville seems to doubt the statements of our distinguished surgeon, and, indeed, doubts that the operation ever has been performed by any one, and quoted authors who question the possibility of the operation, without quoting a single one who ever has performed it. He stated that in all the medical museums in Paris and London he had never seen a single specimen of extirpated parotid gland. He doubted, indeed, whether there was any disease of that organ except hygroma. As to the anatomical facts his lecture was interesting, but in his surgical statements he came in conflict with experience; and I shall here, from an altogether scientific point of view, present a few facts in regard to this operation, and the diseases of this important organ. As far as I know, there is no special treatise upon the parotid gland, and I have, therefore, collected the following facts, which prove beyond a doubt, that the extirpation has been made many times, and furthermore, that the parotid is subject to disease as well as other glands. The particular character of the different kinds of tumors which appear in the region of the parotid are still very imperfectly understood; notwithstanding the researches of pathological anatomy, we

are still very far from a clear understanding of the real seat and origin of them, of their diagnostic signs, their most rational treatment, or their more or less favorable prognosis, and it would be of great importance in practical medical science if we had more positive knowledge on these subjects.

I shall first, before attempting to prove that many distinguished surgeons have extirpated the parotid, briefly mention the diseases to which this organ is subject. To these belong carcinoma, osteoides, enchondroma, induration, hypertrophy, sialomo, hydroma, aneurism, lymphatic and many other tumors.

Carcinoma fibrosum produces a stone-like circumscribed swelling of less circumference than the gland, with uneven, knotted surface, is generally movable, grows slowly, and therefore may exist many years without causing the patient much trouble; sometimes it is very deeply seated and becomes spread out into the ear or throat.

Carcinoma medullare appears very seldom and produces larger tumors which grow more rapidly. On their first appearance they are like small, hard, uneven knots, which afterwards become softer, as if divided in small portions, and often present a spurious fluctuation. It is particularly this kind of carcinoma which causes the disease to take deeper root, where it can grow and distribute itself in different directions. In the case of a patient who died with a tumor of this description, Berard found that the internal jugular vein participated in the degeneration, and that the diseased mass reached into the vein. It can easily be seen how great the difficulty and danger would have been in this case to have attempted extirpation. A subdivision of this disease Rokitansky calls cystocarcinoma, whose nature does not differ materially from the other kinds. Prof. Larsen has removed a tumor of this kind from the parotid, and exhibited it in the Philatrien Medical Society.

Induration.—This form may be the consequence of chronic inflammation of the parotid, but in some cases it occurs without any such previous inflammation. Sometimes hard circumscribed tumors are found in the parotid, which, without causing any pain, or in any way particularly troubling the patient, continue unchanged many years. Such may be fibrous bodies, dermoides, enchondroma, or osteoides, and all appear to proceed from the fibrous elements of the gland. We are hardly likely ever to arrive at any certain signs by which they can be distinguished, till the anatomical knife, after operation, makes known to us their component parts. They are all

considered of a mild nature, and can generally be easily removed without danger of revivification, with the exception of the osteoid, described by John Muller, which, according to Rokitansky, is nothing more than medullary sarcoma.

Hypertrophy.—There are very few instances of tumors of the parotid of this nature. Sabatier, who calls them the "*de la parotide*," has seen them twice; Tenon and Berard each once. They are often congenital affections, and depend upon the greater development of the separate portions of the gland so that they appear in a considerable compass, and form tumors more or less hanging. In some cases there was also a telangeiectasis or an increased vascularity of the glandular masses. In one of the cases mentioned by Sabatier, a man aged sixty had a large tumor on the side of the neck, with a constricted basis, so that it was easily moved in all directions, its insertion reaching from the zygomatic arch and the ear, which was projected forcibly forward over the masseter muscle. It had existed fourteen years and grew very slowly in the beginning, but afterwards more rapidly. He removed it successfully with a ligature, and compared the inner structure to that of chronic hypertrophy of the tonsils. Tenon saw a case of a child of one year, where the tumor was about the size of a man's fist. On the death of the child, which occurred soon after, the tumor was found to have been caused by a derangement of the parotid, which also was full of strangely developed arteries which proceeded from the external carotid. Berard saw a child two or three years of age, who had a similar tumor, having its seat in the region of the parotid. It was oblong, tolerably hard, of a bluish color when the child cried or exerted itself. The compass could be diminished by compression. All the physicians who saw it considered it a telangeiectasis. Berard was just about treating it as such, when the child died of another disease. It was then found that the tumor consisted of a hypertrophied parotid whose texture was unchanged, but granulations were interwoven with a quantity of strangely developed veins.

Sialomo.—These tumors, which are also described under the name of abscesses, or tumores salivales, consist of a collection of thick saliva, contained in a closed sac, in the parotid, but instances of these are so rare, that in the annals of medical science very few are recorded; they are the same for the parotid, as ranula for the sublingual gland. These tumors sometimes contain sand, or small calculi salivals; they differ in size from a nut to a goose egg, and even larger. Felix Plater describes such an one Lib. 3, p. 689. Keemer describes

a similar tumor. (*Journal fur Chirurgie Augenheilkunde* of Graeffe and Walter.

Hygroma—Rokitansky.—These also appear very seldom, and are distinguishable from sialomo by their not containing saliva, but a thin, divers-colored fluid, clear as water, which is contained in a sac. Henry* observed such a tumor in a child four years of age, which had suffered therefrom from its earliest years. It developed slowly without pain, together with a feeling of fluctuation; at the first attempt to remove it, six ounces of a clear fluid flowed out. Valker and Wutzer have described a similar case.

Aneurism.—Tumors of this kind proceed from lesions of the external carotid, or its branches, or of neighboring arteries, as the vertebral; they may be of considerable circumference, and their diagnosis is sometise attended with great difficulty, as they do not always pulsate, and under the form of a false aneurism may produce tolerably hard tumors contained in the parotid, and surrounded by its aponeuroses. They appear oftenest after lesion of the arteries consequent upon shot wounds, etc. Berard saw them in the upper part of the region around the parotis after arteriotomy. A remarkable tumor of this kind is described by Jovil.† The patient, in consequence of a shot wound received in a duel, had a lesion of the external carotid and internal jugular vein, whereby these blood-vessels were brought into internal communication, but the artery also opened in an aneurismatic sac of the size of a pigeon egg, which formed a considerably large tumor in the region of the parotid, so that there existed at the same time both varix aneurisma and aneurisma varicosum. Besides, Romagna,‡ of Naples, has communicated a not less remarkable case, where a tumor in the parotid gland proceeded from an aneurism of the vertebral artery caused by a punctured wound under the ear. The projection, a false aneurism, formed a considerable sized tumor, which reached from the ear to the angle maxilla inferior, and from the edge of the sterno cleido mastoideus to the edge of the maxilla inferior.

The principal tumors in the parotid, whether they proceed from the degeneration of the gland itself, or of the lymphatic glands, have generally several similar qualities, such as growing slowly in the beginning, or remaining stationary a long

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* Bulletin de l'Academie.

† Gazette Medicale, p. 457: 1840.

‡ Archives General de Medicin, 2d series, 5th volume, page 138.

time; and as they are frequently wedged in between the processus mastoideus and maxilla inferior, lift the ear more or less upward, and thereby the lobulus of the ear sometimes almost disappears. When the tumors have reached a considerable size, they sometimes impede the motion of the maxilla, press together the ear channel, and affect the hearing, as well as compress the large blood-vessels, thereby causing a feeling of giddiness in the head. They soon almost imperceptibly make their appearance in the form of little hard moveable knots in the region of the parotid. Preeger thus describes a case where a woman thirty-three years of age suddenly, at night, felt an acute pain in the cheek, which reached down to her neck, and was so severe that she could not raise her head without assistance; sometime after, she observed a little knot under her ear, which was tender to the touch, and then, after a lapse of ten years, it had grown to an immense size, which not only covered her cheek, but reached down to her breast, parallel with the pharynx, which it pressed aside. Burns observed a similar tumor.

Extirpation.—This operation, the most customary and certain relief for the greater part of the tumors which occur in this region, was the subject of much discussion and strife among surgeons at the close of the past and beginning of the present century; but we now, finally—partly by the aid of discoveries in pathological anatomy, and partly from the teachings of experience—seem to have arrived at some definite results. A number of older surgeons, such as Heister, Schaarshmidt, Schulter, Acrel, Siebold the elder, Werdier, Sarengeot, Roonhuysen, and several others, have declared that they have extirpated the whole parotid, and give a number of observations, which conclusively prove the truth of their statements.

Notwithstanding all this, Burns and Ritcher, and afterwards Boyer, attempted to prove that these surgeons, when they believed they had extirpated the parotid, had deceived themselves. They attempted first to show that the tumors described by them were not generally seated in the parotid, but in the adjacent lymphatic glands, which pressed the parotid down in the cavity and atrophied it, and after their removal it seemed as if the whole parotid had been removed. Richter even went so far in condemnation of the operation, that he did not consider a surgeon warranted in performing such a hazardous operation. Still, many of the older surgeons have proven by their own observations, that some at least of the tumors in the parotid have been removed with complete suc-

cess, and without danger of lesion of any consequence, even in many cases without the slightest difficulty, and that it can be done without removing the whole of the parotid, in which they have developed themselves.

So the possibility of total extirpation being performed, has been established beyond a doubt, by many surgeons whose names occupy a prominent place in the annals of medicine, and in this connection, I will here mention some of these distinguished surgeons, viz: Beclard in 1823, Randolph, Lisfranc, Gensoul, Hendricks, Ollenrath, Kleins, Ohle, Walter, Chelius, Prieger, Berendts, Weinhold, Beelard, McClellan, Dieffenbach, Heister, Wallman, in 1828, in Vienna; Dupuytren, in 1829, in Paris; Bendz, in Copenhagen, in 1838; Verdier, Mott, Geyroud, Boyer, Stedman, Lacoste, Larrey, Nægle, in 1830; Brainard, in Chicago, and many others.

These all prove that the parotid can be removed, even when the glands are degenerated, and in fact they recommend the operation as being absolutely necessary. That it can be done is much the more indisputably proven by careful examination immediately after the operation, when the cavity of the parotid region, blood-vessels, nerves, and parts bordering on the cavity inside, may be seen without any remnants of the glands, partly also by consequent perfect paralysis of the face, and partly by post-mortem examination. At the same time experience teaches that degeneration of the parotid can thus take place when prolongations of the diseased mass have forced themselves in the deepest parts, for instance; to the bassilary process, or atlas, then the complete extirpation of the gland becomes impossible, still science may accomplish much under very difficult circumstances. Hendricks has shown, in a case where the tumor was very large, and unusually firm, and sent prolongations into the deepest part, among blood-vessels, nerves, muscles, etc., that one of these prolongations hung fast to the stem of the nervus vagus, and had to be separated by very careful dissection, the pharynx was seen entirely bared, contracting itself together under the constant desire to swallow, which distressed the patient. Under this troublesome operation, which lasted an hour and a quarter, several arteries were tied, but the lesion of the carotid was avoided.*

These questions may now be considered conclusively settled:

1. That tumors lying in the parotid have been successfully removed without the necessity of removing the whole gland.

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* Braamberg Dis de exterpatione gland parotis, et sub maxillaris, 1829.

2. That the whole parotid can be extirpated when circumstances require it, either when the whole gland is degenerated, or when a tumor, on account of its situation, cannot be removed without taking the parotid also. Practical talent and experience are what are most to be relied upon in such cases, but we may consider it a tolerably well established rule, that in every tumor which we have not been able to disperse, or where dispersion is not advisable, there is an indication for extirpation.

Neither the size of the tumor, nor its ulceration, nor the age of the patient, are any contraindications to the operation, for many surgeons have extirpated the largest tumors with complete success. Some have thought best not to operate on scrofulous subjects, or lymphatic tumors, because they consider scrofula a constitutional disease and that the operation would be of no use. In the meantime, Sidellet has undertaken a number of operations of this kind among soldiers, as also Velpeau and Warren, and experience seems to have taught them to consider these tumors in patients who have arrived at a certain age, more as local affections than constitutional diseases. Upon these grounds they removed others with equal success from other parts of the body, for instance, the groin, axilla, neck, etc. Still the operation must be considered as contraindicated when the tumor is very deep-seated, or there are suspicions that it reaches very deep, and has a considerable prolongation, for instance, reaches forward in the fauces behind the tonsils.

That they are carcinomatous, ought not to deter us from attempting their removal, as experience has shown by many observations that these tumors have been successfully removed without danger of their returning; melanosis is an exception to this, and must be considered as a *noli me tangere.*

Before we proceed to extirpation of deep seated tumors, which often expose the parotid, the question should be well considered, whether we can insure ourselves against hemorrhage by ligature of the common carotid beforehand. This proposition was first made and executed by the English physician, Goodland* while extirpating the whole parotid, and several have followed his example. It is not easy to say beforehand whether the tumor is formed by degeneration of the whole or a part of the parotid, which of course would have more or less effect upon the hemorrhage, as experience shows us that many tumors in the lymphatic glands can be removed

* Medical and Surgical Transactions, vol. i: p. 12, 1819.

without the least danger of producing lesion of the carotid. Also, the situation of the artery is variable, sometimes perforating the gland's deepest part, sometimes lying in a cavity at its point, or the foremost edge, and as one position occurs quite as frequently as the other, it follows that even in the extirpation of the whole parotid, it is not always necessary to cut the external carotid, which for instance, Smidt, Lisfranc, and Hendricks avoided, and McClellan was even so fortunate as to loosen the whole artery out of the diseased mass in which it lay, and extirpated the whole gland without the necessity of tying it; furthermore, several surgeons state, that tying the common carotid has, in several cases not only proved to be a difficult and dangerous operation, but its consequences have been injurious to some of the vital organs, particularly the brain, lungs, larynx; and the internal carotid, can, in this operation, almost always be avoided. Velpeau very justly observed, that this preliminary ligature ought, under all circumstances, to be confined to the external carotid, and besides assures us that he never has found it necessary to undertake any such ligature, although he has constantly performed this kind of operation, and in doing so, often reached in to the very depths of the parotid cavity. For these reasons it is not only unnecessary to place a ligature upon the external carotid, but in many cases it would be connected with great difficulties, because the lower end of the tumor generally covers the artery. On this account it is sometimes difficult enough to place a ligature upon the common carotid, and we see, for instance, that Dr. Stedman occupied fifty-five minutes in doing it. In attempting to pass such a ligature, he happened to open the jugular vein, and thereby nearly lost his patient through the entrance of air into the vein.

Berard also considered this preliminary ligature quite unnecessary except in case of a large encephaloide, which tumors are sometimes very frail, and if torn under the operation might produce dangerous parenechymatose hemorrhage. Instead of a preliminary ligature a reserve ligature (ligature d'attende) under the common carotid, has also been recommended as advisable under certain circumstances. Beelard, Roux, Lisfranc and Gensoul have made use of it. Langenbeck and Braamberg compress the artery during the operation with the finger.

All now seem agreed that these precautionary measures are unnecessary, and depend upon reliable assistants who, during the operation, can compress the primitive artery.

It is generally acknowledged that definite surgical rules are

sometimes very difficult to establish. In such cases talent and skill only can guide the surgeon, and he is often obliged to create his own methods, and difficult as the operation seems, and to many it may appear an impossibility, still, no one who is acquainted with the surgical annals of different countries can doubt the records of men whose only object has been to relieve suffering, and leave truthfully to posterity their experience.—*Louisville Medical News.*

EXTRACT FROM LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY.

BY M. CLAUDE BERNARD.

GENTLEMEN:—In my first lecture I made you acquainted with the course which I proposed to carry out in the study of Experimental Pathology, and I endeavored to show you how difficult it was to enter on the study of so complex a science as that of Medicine, without having previously acquired a preliminary knowledge of other sciences less complicated in their nature; lastly, I endeavored to combat an opinion, too generally entertained, viz: that physiological phenomena belong to an order of facts entirely foreign to those which occur in the morbid state.

We shall now enter on the study of the symptoms peculiar to the pathological state, the agents which give rise to them, and those calculated to bring about their removal; lastly, we shall produce all the phenomena of disease by artificial means, and shall then endeavor to make them disappear.

But, before entering on this subject, it is indispensable to ascertain whether everything which occurs in a state of disease can be explained on physiological grounds; or whether disease has the peculiar property of originating, in the living being, laws altogether new, and of which we have not the slightest idea as existing in a state of health.

If, in the case of an adult in the full enjoyment of all his faculties, we ask ourselves what is the regulating agent, what the *primum mobile* of all physiological actions, we are constrained to reply that its seat is in the nervous system. It is to the nervous system that we owe both sensibility and volun-

tary motion, that two-fold source of all our relations with the external world; it presides over all organic functions, and it is my intention to prove to you, that while it is the origin of all the normal phenomena of life, it is also that of all pathological action.

In proportion as we ascend in the scale of animal life, we see the nervous system acquire greater development, and at the same time we observe that diseases become more frequent, more variable in their form, and more complicated in their nature. Why should this coincidence astonish us? Are not all our organs dependent directly on the nervous system? If we take, one by one, the different systems of the animal economy, it will be easy to show that all the symptom of the diseases to which they are liable, may be produced by direct irritation of their corresponding nerves. We can even give rise, in this way, to all the anatomical lesions by which they are characterized.

What, for instance, are the principal signs of the affections of the respiratory organs? Cough, dyspnœa, increased bronchial secretion; are not these the symptoms which most frequently proclaim their existence? Now all these phenomena can be produced at will by the direct excitation of the pneumogastric or certain other nerves; we can even call into existence the anatomical lesions incident to pleurisy and pericarditis. The causes of these morbid changes would therefore appear to be intimately connected with the nervous system. If we now turn our attention to the digestive apparatus, we shall soon be convinced that the physiologist possesses the same power relative to it, as he does in the case of the respiratory organs. By exciting the solar plexus and its efferent branches, we can determine both diarrhœa and dysentery, together with the anatomical lesions which habitually accompany them. Acute peritonitis has even been induced with all its consequences, as evidenced on opening the animal, by the presence of pus and false membrane in the peritoneal cavity.

Thus, then, a multitude of diseases may be brought into existence by a simple modification of the elements which the animal economy originally contains, without having recourse to the introduction of any new principle; and, if we were to examine the other systems of the body, results analogous in their nature would be obtained. Fever itself, that essentially medical symptom, can be excited by a mere mechanical irritation of the nervous system, and the products of inflammation, such as pus, false membranes, and plastic exudations,

may, any or all of them, be called into existence in a similar way. In an animal, previously enfeebled, we can produce, directly, pleuritis with purulent deposit, by the simple division of the great sympathetic nerve; in order, however, to insure success in this experiment, it is absolutely necessary that the state or condition of the animal's health should be previously lowered.

It is, therefore, a fact, that the perverted state of the nervous system gives rise to a great variety of diseases, not only of a general, but also of a local character; deprive a muscle or a bone of its nervous supply, and you will have, as a consequence, fatty degeneration in the one case, and rickets in the other; in fact, if you tie the nerves, which enter the nutritive foramina of a bone, you will very soon see the cells of the lamellar structure increase in size, the vessels become more numerous, and all the phenomena of rickets follow in rapid succession; we can even bring about these results on part of a bone, without interfering with the remainder. This experiment has been successfully carried out, in the case of the lower jaw, by M. Schiff, of Berne.

But there exists in disease an immense number of other phenomena, which, at first sight, it appears impossible to produce by a simple lesion of the nervous system; I allude especially to the alteration or modification of the fluids of the body, which takes place in the course of certain maladies. Now, I am prepared to demonstrate that a vast number, if not all, of these morbid changes, are still to be traced to the action of the nervous system, and that they can be reproduced at pleasure by the physiologist. Among the various fluids of the body, the urine is that one the morbid changes of which have been the most carefully and completely investigated. Now you are perfectly aware, gentlemen, that albuminuria, polyuria, and diabetes are invariably produced by excitation of definite points of the medulla oblongata, the peculiar form of the perverted urinary secretion being determined by the particular portion which is acted on; it is in the case of diabetes especially that the importance of this experimental fact is fully brought out. It was supposed that in diabetic patients the morbid state created entirely new conditions in the economy, which gave rise to the pathological production called sugar; it is now, however, admitted on all hands that these phenomena are fully explained by the mere exaggeration of a normal function, in virtue of which glycose is generated in every individual even in a state of health. It is therefore evident that disease, in this case, is nothing more nor less than an exaggerated natural function.

There exists, however, a certain number of pathological products and morbid manifestations which we have not been able to imitate by the employment of artificial means. Shall we be able, at a later period, to connect these facts with those which already fall within the range of experimental physiology? Such is the scientific problem of the day. The question is, whether we shall, one day, be able to embrace pathology in its entire extent, within the compass of biological explanations, or whether we shall, in addition to all which we can imitate or explain, forever be compelled to recognize a *special principle*, mysterious in its nature, which we must acknowledge as a morbid or vital phenomenon?

Let us take, for example, eruptive fevers, small pox, scarlatina and measles; these are diseases, indeed, which it is impossible for us to produce without having recourse to a special virus. Shall we, one day, be able to realize this undertaking without the intervention of the peculiar animal poison on which they seem to depend? Must we not, first of all, solve the question, whether such diseases as those we have just specified can possibly exist in animals, even in those which approach most closely to the human species? Are they not in reality the exclusive property of the human organization?

Nothing is more difficult than to produce, through the agency of the nervous system, eruptive diseases in animals, the vitality of the skin of which is essentially different from that of man. We can, nevertheless, produce ecchymosis, congestions and glandular swellings; but it must always be borne in mind that each particular species of animal has its own peculiar diseases, which cannot be transmitted to a neighboring species, however closely allied they may be. Now man, in himself, presents a greater number of special diseases than all the other animals taken together.

Fortunately for physiology, such incompatibilities are rather the exception than the rule. Tubercle, cancer, and many other morbid productions, are found equally in animals and in man. Every disease which gives birth to morbid tissue is evidently a perversion of the nutritive function; now, who will venture to deny the influence which the nervous system exercises over this physiological act? We must, therefore, advance resolutely in the path which lies open before us, without allowing ourselves to be disheartened or intimidated by the difficulties of our science. But we must bear in mind that a disease is not characterized by one single symptom; it consists rather of a complete series of symptoms, standing to each other in the relation of cause and effect. It is, in fact

a morbid evolution which offers a commencement, a middle, and an end; so that a skillful and practiced observer, on witnessing the first stage of a disease, can predict its probable termination. This is no doubt true; disease does not consist in an isolated symptom; it is a collection of symptoms. Now these reunions of morbid phenomena, we indubitably succeed in reproducing in animals. The functions of life are modified in various ways by a variety of different agents. Poisons determine real disease which present an unbroken chain of symptoms, consequent on the introduction into the system of the toxic agent. Here, therefore, we find an entire class of diseases which can be produced at will.

But setting aside this question of such vast dimensions, and to which we shall revert at a later period of our course, let us inquire whether, by mere surgical operations, by mere mechanical lesions, we can determine on the animals subjected to experiment, a certain number of morbid series. If you simultaneously remove the two kidneys of a dog, or simply tie the renal arteries, you immediately produce a general disturbance in the entire economy. The animal is powerless in expelling the excrementitial product which should pass off by this channel, and the whole system becomes gradually poisoned. At first the animal is not seriously affected; it continues to eat and digest its food for a certain lapse of time, which corresponds with the period of incubation in diseases; by and by it is attacked with vomiting and purging, shortly after which it dies.

What takes place in a case like this? Let us endeavor to explain it. During the first period the urea, which can no longer be eliminated by the kidneys, is expelled by the intestines. It is found, together with the salts of ammonia, in the animal's excrements, and even in the gastric juice. If this new mode of elimination could be prolonged indefinitely the animal would not become diseased—it would not die; but very soon the mucous membrane of the intestines, irritated by by the constant contact with the ammoniacal salts, gives rise to morbid changes. On the other hand, as long as the urea is eliminated by the intestines, it does not find its way into the blood. This fact has been demonstrated experimentally by MM. Prevost and Dumas, who have not, however, succeeded in explaining it. Now, at a later period, when the mucous lining of the intestine refuses to continue this function, which is altogether foreign to it, the urea finds its way into the blood, and the animal soon expires, comatose and convulsed.

When the cessation of the urinary secretion depends on the ligature of the renal arteries, this state of things may sometimes be obviated by removing the ligatures; the self-same thing would also take place in man, if there existed an obstacle to the passage of the urine, and if it were possible to remove that obstacle; but in all cases in which the kidneys have been removed, death has always supervened. The destruction of the animal has been the invariable termination of the morbid series.

Here, then, we have a disease which can be artifically produced; but there are many others, the causes of which are agents existing exterior to the body; contagious affections belong to this class. The fact has been experimentally proved in the case of the peri-pneumonia of horned cattle, by the establishment of a communication between two cow-houses, the one containing healthy, the other diseased cattle. In the inclosure, which, in the first instance, contained only healthy cattle, several cases of this peculiar affection occurred in succession.

But independently of these various causes, the action of which I am far from being disposed to deny, internal accidents occur, and give origin to various affections in the economy. This has been experimentally proved; if you remove both the kidneys of an animal, it dies; if you remove, however, only one kidney, the animal continues to live; the organ becomes enlarged, and plays both its own part and that of its absent fellow; a fact which can be easily ascertained by opening the animal a certain time after the operation has been performed. But if, instead of removing the kidneys, you simply make a division of their nerves, the animal dies. During the first few days which follow the operation, albuminuria is produced; shortly after, inflammation of the kidneys sets up; they then mortify and become decomposed; so that, finally, they act on the economy like a septic poison, which inevitably leads to death. Such I consider to be the natural explanation of this *apparently* mysterious fact.

I now presume that I have established the initial proposition: Not only can we succeed in producing morbid symptoms in animals by artificial means, but even actual diseases, with their complete chain of results. Pathology, regarded from this point of view, combines the resources of physiology with those derived from clinical observation.

IPECACUANHA INSTEAD OF TARTAR EMETIC IN CROUP.

BY J. C. SHAPARD, M. D., OF FLAT CREEK, TENN.

I am strongly impressed with the opinion that much harm has resulted from the employment of tartar emetic in croup. It is but justice, however, to admit that this opinion is not the result of long experience or extensive observation. And moreover, according to an ancient sage, an opinion is only the half-way house between ignorance and knowledge. I shall content myself with expressing the opinion, without attempting to estimate its value.

I think I have seen fatal prostration result from the use of tartar emetic in infantile cases in my own practice, and in the practice of other physicians; physicians, too, who were regarded as "skillful and scientific," and who deservedly rank high in the profession. That it was prescribed scientifically in the fatal cases alluded to, I have not a doubt. That is, that according to the "teaching" upon the subject it was indicated in those cases. It is the province of our teachers to lead the van of the profession and give the "word of command." They tell us to use tartar emetic in croup; but in justice to them it must also be said they enjoin caution in its administration, and this injunction may not be sufficiently regarded by the subalterns in the professional army.

Among the pathological elements of croup are inflammation, with or without fibrinous effusion, and spasm. Tartar emetic, in sufficient doses will arrest the inflammation, throw off the fibrinous product, and overcome the spasm; but in accomplishing these results a dangerous prostration is much to be feared. And when we remember how many physicians there are who are more inclined to the heroic than the prudent, it becomes a desideratum to find a remedy that will be as efficacious as the tartar emetic, without its dangers. According to M. Petit, ipecacuanha is that remedy.

M. Petit says, in a recent journal, he has been practising medicine in Paris fifty-two years, and that during his long career he has not lost a single case of croup. He treats the disease with emetics—generally ipecacuanha—tartar emetic *never*. He administers the ipecacuanha in syrup, in infusion, or in powder, according to the age or urgency of the case, but always in emetic doses. He prefers the ipecacuanha because

he considers it a superior emetic, because it can be administered in large doses with impunity, and for the reason that those who give their attention to the little patient are in no danger, through error or inexperience, of injuring it by heroic practice. He thinks it is the emesis that cures the croup—that the vomitings and efforts to vomit detach and throw off the false membranes—that the general shock, and the perspirations produced by the vomitings, modify the organism in such a manner as to prevent the formation of new false membranes. But, in order to obtain these desirable results, he says it is necessary to insist on the emetic without the fear of fatiguing the little patient, as long as the indications for its use continue, and to return to it after having obtained these results, should the croupal cough and dyspnœa return, without waiting for the respiration to become wheezing. And if the physician wishes to be sure of curing his patient, he should not content himself with prescribing the emetic, but he should administer it himself, or have it administered in his presence; and he should not leave the patient until its respiration is completely relieved, and until it can rest easily in the horizontal position.

M. Petit has met with extraordinary success in the treatment of croup—greater perhaps than most other physicians have obtained from any treatment whatever—even the emetic plan; but his long sustained eminent position is a guarantee of his good faith and scientific attainments, and although others might not be as successful with the ipecacuanha as he has been, yet I think its substitution for tartar emetic would lessen the mortality of croup.—*Nashville Medical Journal.*

NOURISHMENT IN TYPHOID FEVER.

English journals and English books contain much strong language and many strong facts in favor of nourishment in typhoid fever. A belief in the necessity of sustaining the strength of those who are to pass through this dangerous disease, is certainly gaining ground. But there are still some who cannot see that the debility which follows the fever is even worse than the fever itself, or, more properly

speaking, are so intent upon the disease, that they forget the condition produced by it. Upon the prostration depend tardy convalescence and many of the sequelæ which not only add greatly to the patient's sufferings, but threaten life itself.

It is clear that many patients relish certain kinds of food, and bear them well, but are kept upon disagreeable and comparatively innutricious articles of diet, the use of which is sanctioned by old and unfounded theories. As the French have advocated every variety of treatment, and been quite as heroic as any physicians, it gives us pleasure to furnish a summary of some remarks by Dr. Monneret, physician of Neckar Hospital, in Paris, published in the *Bulletin de Therapeutique* for January 30th, 1860. After denying that there is any special treatment for the disease, he strongly insists upon the necessity of sustaining the strength by liquid and solid alimentary substances. He commences with an emetic, which is repeated on the second day, if the action previously has not been sufficient. During the second, third, and fourth days he gives lemonade, bark, quinine, wine and broth, and soon after strong soups. He remarks that the physician may feel some repugnance at giving wine and soup to a patient who has a dirty tongue, diarrhœa, fever and delirium, but on reflection it will be seen that there is no other contra indication to the employment of alimentary substances. Those who insist upon a strict diet are still influenced by the doctrine of irritation. They see inflammation where it does not exist, and are constantly afraid of exciting or increasing it. They therefore allow patients to die, who might recover if properly nourished. Whatever may be said about fever, it should not prevent us from sustaining the strength. Do we not prolong the existence of phthisical persons, undermined by fever, by nourishing them until the last moment? Do we not, by nourishment, sustain, for a long time, the life of persons laboring under visceral diseases?

Surgeons have learned, although rather late, and at the expense of their patients, that fasting is often pernicious after great operations. A great number of complications of all kinds assail the sufferers and compromise their existence, if the strength is not upheld by broths, wine, and even more substantial aliments.

Besides, all fears, inspired by systematic ideas founded in bad medical doctrines, fall before impartial observation, which show us that patients who are a prey to fever, digest very well all the things mentioned. Still more, diarrhœa, gurgling, and meteorism, far from augmenting, partially diminish.

We can easily conceive that alimentation should be without harm, as the stomach and a great part of the small intestine are exempt from all textural if not functional change.

Patients attacked by a form of fever which progresses rapidly and violently, terminating fatally, perhaps, in less than a week, take wine and broth with great pleasure, and bear them better, perhaps, than medicated drinks.

In following the proposed course, we only act in accordance with the universally admitted law that nature is to be assisted. In this disease a want of strength is what we have great reason to fear, and, certainly, nothing can so effectually guard a patient against this danger as the use of nutrient materials, which are easy of digestion.

M. Piorry writes in the same strain, in the *Gazette des Hopitaux* for March, 1860. He gives the following rules:

Give, in general, nourishment, when patients wish and need it.

Choose that which observation has shown to be the most suitable and most easily digested.

Commence with a small quantity.

Observe the effects, and increase the quantity promptly, if the experiments show such a course to be desirable.—*Boston M. and S. Journal.*

SUN STROKE.

On this subject Dr. L. Ch. Boisliniere, Coroner of St. Louis county, Mo., publishes in the *St. Louis Medical and Surgical Journal*, for July, a report of seventy-two cases observed by him.

The necropsies in these cases revealed the following conditions:

External Appearances.—Marked lividity of the skin; neck and anterior part of chest became soon of a purple or blue color; in a few hours the abdomen was quite tympanitic, an abundant froth came out of the mouth and nostrils, resembling thick lather, mixed sometimes with a little blood. By pressing upon the chest, blood could be made to flow freely from the mouth and nostrils.

The lungs and heart were in every case seen to be more or less conjested; the right side of the heart and the pulmonary

artery generally contained black and liquid blood; left side empty; on section, the lungs were found to contain an abundant quantity of frothy mucous, mixed with more or less arterialized blood. By moderate pressure on the chest, as above observed, this bloody froth could be made to run out freely from the mouth and nostrils. So characteristic was this appearance, that from its presence alone many post mortem examinations towards the end of the summer were dispensed with, the jury, before the writer, after a short explanation, being able to make a satisfactory verdict of death by sun stroke.

The brain was generally found normal; in a few cases only there was moderate congestion of the superior cerebral veins and of the sinuses. This the author accounts for by the difficulty the blood found in returning from the head to the thoracic organs, already full of venous blood. Occasionally the ventricles of the brain contained a little more serum than usual. This Dr. B. attributes to the obstacle about the heart and lungs, damming up the blood in the veins of the brain and its sinuses, and causing some of the serum to ooze out. This effusion of serum was often quite remarkable on the surface of the brain under the membranes, where it frequently assumed an opalescent appearance.

Liver and spleen were, as a rule, enlarged; the spleen particularly softened.

The author remarks that these appearances coincide with what has been observed by several distinguished writers, among whom are Andral, Russell, Gerhard, and Levick.

Cause.—The cause of sun-stroke, according to our author, sustained by the best authorities, without doubt, is a hot and rarified atmosphere—the want of oxygen; for the disease occurs very frequently in houses where, from some cause, the air has become rarified. Several of the deaths reported above by the writer, having taken place in low attic rooms, in kitchens or laundries, and in sugar refineries, as observed by Dr. H. H. Swift, (*New York Journal of Medicine*, vol. xiii, p. 45, 1854.) From these and other observations, Dr. B. concludes that rarified, or poorly oxygenated air, is the "*conditio sine qua non*" of sun stroke.

Homœopathy.—Like cures like. Sulphur comes from Vesuvius. Therefore it is good for eruptions.—*Punch.*

BELLEVUE HOSPITAL.

MALPOSITION OF FŒTUS DETECTED BY EXTERNAL MANIPULATION DURING LABOR—CEPHALIC VERSION BY THE SAME MEANS—SUCCESSFUL.

The following interesting and highly practical questions in obstetrical science, have recently been agitated among those devoted to that branch of medicine:

1. Can a malposition of the fœtus in utero be detected by external manipulation prior to labor?

2. Can such malposition be rectified prior to labor by external manipulation?

Some of the leading professors of obstetrics in this country have taken strong grounds in the negative, and several, not only denying the possibility of detecting and correcting malpositions prior to labor, but even questioning the professional honesty of the practitioner who should endeavor to determine by external examination, prior to labor, whether a malposition existed. The following case, which occurred in Bellevue Hospital, a few days since, under the care of Dr. Barker, is a most important contribution to this subject. We copy the notes of the case, furnished us by Dr. E. B. Barrett, House Physician:

Mary Ann ———, aged 17, born in Ireland, was admitted to the waiting wards of the Bellevue Hospital, March 19th, 1860, in her first pregnancy. On examination, the uterine tumor was very conical, projecting markedly to the right, as well as forwards, triangular in shape, with its transverse diameter greatest. The os uteri was dilated to the size of a quarter of a dollar, and dilatable. The membranes were very full, and projected strongly from the os, and so tense were they that no part of the child could be felt from danger of rupturing them. On the following morning, as the pains had somewhat exhausted the patient, from their teasing character, and as little or no progress was being made, an opiate was administered, from which the patient was enabled to obtain some sleep, awaking much refreshed at 12 M., (the 4th.) The pains now increased in force and frequency, but with no result, save the further dilatation of the os, which was now between two and three inches in diameter. On vaginal examination no part of the child be felt without rupturing the membranes; by palpation, the previous conjecture, viz: that a transverse presentation existed, was rendered nearly certain.

Dr. Barker came to pay his daily visit at this juncture, and concurring in the opinion that the child presented transversely, decided on immediate interference. Accordingly the patient was brought under the influence of chloroform. Dr. Barker again examined the tumor more carefully, both by palpation and per vaginum. Through the external walls the head could be felt in the left iliac fossa, above the pubis. The pelvic extremity of the fœtus was in the right iliac fossa, and the curve of the dorsum could be traced strongly projecting forwards. By a vaginal examination the os was found dilated to the diameter of about three inches, soft and dilatable, with a very large and projecting bag of waters. The presenting part of the fœtus could not easily be felt through the bag of waters, and no force was used for fear of rupturing the membranes; but the deduction, from the external and vaginal examination, was that the right shoulder was the presenting part at the superior strait. Dr. Barker therefore decided to attempt cephalic version in preference to the ordinary method, and he at once proceeded to operate, in the presence of several members of the medical staff of the hospital. The patient being brought to the edge of the bed, in the approved position, he first manipulated by attempting to elevate the pelvis of the fœtus with his left hand, and to depress the head with his right, acting only when it was found that the uterus was not contracting. Finding that he had essentially changed the position of the fœtus, the right hand of an assistant was placed to make strong pressure over the left iliac fossa; he (Dr. B.) still elevating the pelvis of the fœtus with his left, introduced into the vagina two fingers of the right, and during the time of uterine contraction ruptured the membranes, when the waters escaped with great force and abundance. The head could now be felt in the superior strait in the left occipito iliac position. The administration of chloroform was now discontinued, in the hope that the uterus would complete the delivery unassisted. Slight pains, with little progress, followed for fifteen minutes, and, as the fœtal heart was beating somewhat feebly, it was deemed necessary to apply the forceps. The forceps being applied, a male child, weighing eight pounds, was extracted in a partially asphyxiated condition. Respiration was established in a short time, however, and it is now a perfectly healthy child. The placenta came away in five minutes, with no more than the usual amount of hemorrhage; the perineum was not lacerated, and the patient but little more prostrated than is usual after natural labor. The patient proceeded to a rapid convalescence, with no unfavor-

able symptom, notwithstanding the prevalence of an epidemic of puerperal fever in the Hospital at the time of her confinement.

In his clinical remarks upon the case, Dr. Barker contended that he had demonstrated beyond cavil—

1. That a malposition of the fœtus in utero can be detected by external manipulation during labor. Auscultation furnished but slight assistance, and the results of an internal examination were entirely negative. The important fact, however, worthy of special notice, is, that the position of the fœtus could only be ascertained when the uterus was in a quiescent state. It follows, therefore, if the most favorable time for detecting the position of the fœtus is in the interval between contractions, that a malposition can be made out by external manipulation prior to labor; and if the position can be discovered in the interval of the pains of labor, it can also be done one, or two, or even many days before labor.

2. This case demonstrates the possibility of performing version by external manipulation during labor, and, as version by the hand introduced into the uterus was attempted in the absence of pain, he thought this case equally proved that version by external manipulation is possible before labor. But to have the fœtus remain in its new position it would be necessary to rupture the membranes and induce labor, in order to secure the engagement of the head in the pelvic cavity.

CHLOROFORM IN OBSTETRICS.

BY WM. PETTIGREU, WESTERN MED. AND SURG. SOCIETY.

As a general rule he deprecated its use in ordinary or natural labor, for the following reasons:

1. That the accoucher should attend solely and strictly to his own avocation, and that it therefore necessitates the presence of a second practitioner.

2. The folly of incurring any risk of asphyxia or death, although such cases in the lying-in room are rare with chloroform in comparison with those in which surgical operations are performed.

3. That under ordinary circumstances where matters are favorable and progress natural, it tends to depress the system leaving the entire expulsion of the fœtus to the efforts of the uterus, supplied, as it is, by organic nerves, while the muscles of animal life which so forcibly assist its action are almost paralysed.

4. By its administration there is danger both to the mother and child.

Cases illustrative of these objections were related; the exception to the general rule being, where the mother was of a delicate and nervous temperament, and where chloroform was administered in a very modified form, more to attract the attention of the patient from her fears than to lessen the natural throes of labor.

In protracted labor the author had experienced much benefit in its administration, and although the pains for the first ten minutes appeared arrested, they afterwards returned more strongly, with greater regularity, and under its use the rigidity relaxed, the mucous became more freely secreted, the countenance of the patient became less anxious, and the pulse quickened at first, became stronger, and the child was born in a very short time. Cases illustrative of these facts were then related.

The author, in his limited experience, bore out the observation of Dr. Simpson, that hemorrhage seldom or never occurred after the use of chloroform.—*Medical Times and Gazette.*

MURIATE OF AMMONIA IN NERVOUS CEPHALALGIA.

Professor Barallier, of Toulon, reports that within the last three years he had administered the substance in 259 cases of nervous cephalalgia, and with success in 202 of these. He gives forty-five grains combined with mint-water and syrup of orange-peel, divided into three doses, to be taken at intervals of half an hour, amendment commencing after the first dose, and the third frequently not requiring to taken. To prove effectual, however, the remedy should not be given at the very commencement of a paroxysm, but when it has acquired

great intensity. This agent not only gives relief to the urgent pain of the paroxysms, but, after having been had recourse to on several occasions, diminishes the number and frequency of these. To be of use, it must not be indiscriminately used for every cephalalgia; and the result of the analysis of M. Barallier's experience leads to the following conclusions:

1. The muriate almost constantly dissipates paroxysms of idiopathic migraine, and of migraine consecutive to too abundant menstruation.

2. It is powerless in the hemicrania which is dependent upon irregularity or suppression of the menses.

3. It is tolerably successful in cranial pains dependent upon disorder of the stomach, and the accidental cephalalgia frequent in women and feeble persons under the influence of sudden changes of the atmosphere, prolonged intellectual labor, or moral emotion.

4. It operates beneficially in cephalalgias consecutive to repeated paroxysms of intermittent fever; those which are observed during the decline of severe fever, and in the course of the irritative period of typhus.—*Bull. de Therap and Dublin Med. Press.*

Rupture of Varicose Veins in the Vagina during Labor.—The *Berliner Zeitung* records the death of a young woman during labor with her first child, from rupture of the perineum, which involved a laceration of some varicose veins of the vagina. The patient died in ten minutes, from hemorrhage.

Drinking Fountains.—The first public drinking fountain established in London is used seven thousand times a day. The fountains are supplied by the water companies at the usual charge of sixpence per thousand gallons.

☞ M. Cloquet has been appointed President of the Academy of Medicine of Paris.

Editorial.

BOOK AND PAMPHLET NOTICES.

WALSHE ON DISEASES OF THE LUNGS; INCLUDING THE PRINCIPLES OF PHYSICAL DIAGNOSIS: A new American, from the third revised and much enlarged English edition. Blanchard & Lea, Philadelphia, 1860.

We are gratified in being able to announce another edition of this now standard work. It is scarcely necessary to say that the topics discussed are traced by a masterly hand—the previous editions have sufficiently acquainted intelligent readers with the abilities of Dr. Walshe, and the zeal, large experience and facile pen which he brings to the work before him. The present edition is not merely a reprint, but as the author remarks in his preface, has been carefully revised and much enlarged, and may be said, in the main, to be re-written.

Part I treats especially of the Clinical Topography of the Chest, and the Methods of Physical Diagnosis.

Dr. Walshe's analysis of the subject of Physical Diagnosis, whilst it may not be said to afford anything of a strikingly original character, nevertheless epitomizes and excludes, in a manner it is really refreshing to notice in these days when medical book-writers are so prone to aspire to bulky volumes with necessarily diffuse, verbose, and cloudy descriptions.

We would call attention to the author's remarks upon the subject of mediate and immediate auscultation. He evidently does not place large dependence upon the stethoscope.

"Persons, indeed, are to be found who seem to think that the stethescope possesses some mystic faculty of communicating diagnosis, and saving the auditor all trouble of thought. Unfortunately the instrument is no more than—

"Das todte Sprachrohr, das den Schall
Empfangt und wiedergeibt, und selbst nicht horet."

"The motto of the stethoscope might aptly run;

. . . . fungar vice cotis, acutum
Reddere quae ferrum valet, exsors ipsa secandi."

It is said that sometimes immediate auscultation is "disagreeable or indelicate;" we never could see why the thinnest fabric of cloth, (provided it be clean,) would not relieve this difficulty as well as a billet of wood or a miniature hose pipe. Custom, however, must govern, but it should ever be recollected, as the author observes, that "it is as necessary to try on a new stethescope, as to try on a new hat."

Dr. Walshe disagrees with Skoda on the possibility of diagnosing superficial and deep-seated sounds within the chest; and also thinks Dr. Flint's suggestion that bronchial and cavernous respiration may be distinguished by the relative pitch of inspiration and expiration, to be liable to so many exceptions as to be "unworthy of trust."

Among the most valuable sections in this part of the week is that with reference to "Pressure Signs," (§ 487 *et. seq.*) Under this head he gives "a succinct account of certain physical effects, produced on the wall of the thorax, on its contents, or on parts adjoining; and which are clearly due to pressure exercised from within the chest. Some of the most positive and easily ascertained evidences of intra-thoracic disease, are furnished by these pressure signs."

Our space will only permit us to call attention to the pages, although we should be happy to reproduce them entire.

On the whole, we are compelled to say, that we have not, in a long time, read a more sensible, perspicuous, concise, and practical one hundred and fifty pages on "Physical Diagnosis," than those of Dr. Walshe's Part I. We rank it with Dr. Barclay's perspicuous and elegant elucidation of the same topic, in his invaluable treatise on "Medical Diagnosis.

Part II is devoted to a clear and thorough exposition of Diseases of the Lungs and Appendages. Among the diseases mentioned, are pleurodynia, intercostal neuralgia, bronchitis and its varieties, organic changes of the bronchi, tuberculization, and other structural changes of the bronchial glands; the various disease of the pleura, with results; pulmonary

neuroses, primary morbid changes of the lungs, condensation, hypertrophy, etc.; pneumonia, and its varieties; œdema, gangrene, cirrhosis, hemorrhage, apoplexy, hemoptysis, adventitious deposits; chronic consumption, progressive and retrogressive; acute consumption, primary and secondary; hæmatoma, carcinoma, cancer, entozoa, asthma, influenza, pertussis, mediastinal tumor, and abscess.

From this catalogue it will be seen at a glance that the author has gone very thoroughly into his subject, and from a careful examination in detail, we are prepared to say that his method is, in every respect, a model one. His descriptions are forcible and aphoristic, and diagnosis clearly and strongly defined. In the treatment of pleurisy, bronchitis, and pneumonia, in the acute forms, we notice that Dr. Walshe still insists upon the propriety of moderate venesection, rarely carried, however, beyond twelve or fourteen ounces, even in athletic adults. The whole scheme of treatment is based on anti-phlogistic measures, differing but in a few details from standard methods. Recognizing the occasional utility of blood-letting, in these acute inflammatory affections, nevertheless we are convinced that, in the large proportion of cases of the kind, to be observed here in the Northwest, practitioners find it wholly unnecessary, although, technically, it may be "well borne."

It is noteworthy, considering the great importance attached to the use of veratrum viride in these lesions by not a few practitioners in this country, that our author, who is evidently familiar with American books, does not even mention it among curative agencies. But that time-honored sedative, tartarized antimony, he observes, "stands next in importance to venesection in the treatment of pneumonia. Were I, indeed, henceforth, in the management of this disease, forced to surrender either, on the one hand, venesection; or, on the other, cupping and tartarized antimony; I should not hesitate to relinquish the former."

Another observation with reference to pneumonia is worthy of notice: (§ 1160.) "The announced success of treatment by copious libations of brandy appears simply to furnish a fresh

illustration (as conversely Bouillaud's alleged triumphs by his *Saignees coup sur coup* in genuine typhoid [peyerian] fever) of the *vis medicatrix naturae*."

About seventy pages of the work are occupied by the subject—consumption, and these may be considered the most valuable part of the book.

The author, in common with the best observers of the present day, is not disposed to abandon the phthisical patient as an *incurable*. For striking illustrations of the truth of his position we would call attention to § 1518, p. 387, which space will not permit us to quote entire. *Specifics* are considered as unreliable—"but cod-liver oil cannot be so lightly dismissed as it more rapidly and effectually induces improvement in the general and local symptoms than any other known agent, although its power of *curing* the disease is undetermined." The brown oil is preferred, and the other kinds of oil, almond, cocoanut, neat's foot, &c., are characterized as failures. Glycerine, however is admitted to be an important and often eligible substitute. The phosphate of lime, and Dr. Churchill's hypophosphites are very properly passed over with scant and uncomplimentary notice. Hygienic measures are mainly relied upon, and as given, are such as, in the main, command approval. Whilst cautious in his expressions, nevertheless he inclines to approve the moderate employment of alcoholic beverages in the progress of the disease in some of its forms. The exceptional cases which he suggests, are so few as scarcely to make against the general rule.

We cannot forbear noticing, in this connection, the author's reference to the relation of phthisis to the marriage contract. Will a phthisical condition undiscovered until after a matrimonial contract is entered upon, on its subsequent discovery, afford a legal bar against prosecution for its non-fulfillment by the patient? What an opportunity here presents itself for professional ventilation of stethescopic skill in future breach of promise cases. *Horresco referens!*

We should like much to follow Dr. Walshe in his further remarks upon phthisis, upon asthma, influenza, and pertussis;

but, unfortunately, that which we had intended only as a brief notice has already expanded into undue proportions, and we abruptly close by again commending this valuable work to the shelves and to the perusal of the reading members of the profession. A.

Electro Physiology and Electro Therapeutics; showing the best methods for the medical uses of Electricity, By Alfred C. Garrett, M. D., Fellow of the Mass. Medical Society, Boston. Ticknor & Fields, 1860. Received through S. C. Griggs & Co., 39 and 41 Lake Street.

According to forerunning announcement this volume comes to us in unexpected proportion, in goodly apparel and attractive type. It adds not a little to the *readability* of the work, that its mechanical execution is so good that it has attractions for the eye as well as for the mind. Our author does not profess to walk in new or untrodden paths, but "aims to confine himself to gleaning from the highest practical authorities, and the comparing of these with his own clinical experiences, then classifying and arranging the subject matter so as to present the whole range of electro therapeutic practice on a more systematic and scientfic basis." He says: "The very abridged manner and immethodical style of the few works that have appeared in this country, or even in the English language, on the medical employment of electricity, have never yet enabled the medical profession generally, partiularly in this country, to seize upon these telling facts understandingly, so as to bring them to bear upon clinical practice." Such a gleaning from the storehouse of the past, such a reformation in style has Dr. Garratt attempted, so as to bring existing knowledge within available compass, and render it inviting to members of the American medical profession.

We confess ourselves somewhat stumbled on opening at the preface and finding that "Life is electro-chemistry *vitalized*," but suppose ourselves wanting in metaphysical incli-

nation. What essential position the "electro" may occupy in the phenomena of *life*, we are not disposed at present to inquire. We propose only, in narrow limits, to notice the leading features of the work.

The first chapter, treating of Natural Electricity, gives a very concise view of electric laws and phenomena, as explained and understood at the present time. It serves to revive one's knowledge of that branch of natural science, and freshen our school-day impressions. We are not, however, prepared to accept the implied teaching that "Electric changes are the causes of epidemic diseases." While the author quotes from M. Andraud and Dr. Kidd, and also gives Sir James Murray's fifty reasons therefor, he is somewhat careful about committing himself to a theory that finds but few advocates among the observers and writers in our profession at the present day. But we must leave these points for those who may read the book.

"The early history of the medical uses of electricity," constituting chapter second, is replete with interest; tracing galvanism, in its history, from Galvani to the present time. One is led to not a little sympathy for that martyr to galvanic science—poor frog—who has suffered martyrdom for the development of galvanic science for the past three-fourths of a century. The first three chapters form the natural history of the author's therapeutical agent.

Chapter fourth seems more properly to form the basis of the work, and however readily we may admit all the author claims as the therapeutical effect of electricity, we frankly confess we fail to perceive the force of much of the reasoning that aspires to important conclusions, and makes this a long chapter. The bias of the author may be perceived in such phraseology as "nerve battery," "brain battery," as applied to the brain; "sub battery." as applied to the ganglia; while muscle is exalted into "a kind of *minute compound voltaic battery* of membranous cells." Of the brain he says: "It is now manifest that almost every structure and arrangement here found may be nearly imitated by voltaic arrangements, combinations, and manifestations."

Of the blood vessels and muscular system, he avers, "Each of these muscle fibres is completely enveloped by the minute blood-vessels which run parallel with them. This admirable arrangement of the capillaries yields the abundant supply of arterial blood so necsssary for the manifestation of muscular motion; as contractions evidently ensue from changes taking place in the material in, of, and about, the ultimate fibre by a nervo-voltaic process; and also, perhaps, by artificial galvanism." From such premises he affirms, "The actual bearing of these investigations shows that in whatever process or function of the human body the blood is the most essential, these, nothing less than true voltaic or animal electric actions, and *life force* must have an influence. Furthermore, since it is self-evident that the circulation of the blood has thus to do, more or less, with every operation of the living body, I will only add that these experiments and considerations demonstrate the vast importance of employing artificial electricity, if possible, as a co-worker with nature's similar actions in our organisms, as a rational, natural, and extensive remedial agent." Or, in other words, since the structure and arrangement of the brain may be imitated by voltaic arrangements, and since muscle is "a kind of minute compound voltaic battery," and as muscular contractions follow as a result of a nervo-voltaic process, therefore follows, as above, a demonstration of "the vast importance of employing artificial electricity, &c." We simply dissent.

There is much reasoning of which we fail to see the force, since we do not admit there is anything physiologically essentially common between electricity or magnetism and nervous influence.

As soon would we reason a similarity between calomel and ordinary food because they will each pass the alimentary canal, excite peristaltic motion by muscular contraction, while the former is claimed by its admirers to exert stimulant, sedative, alterative and other influences as numerous as the most ardent electrist would presume to claim for his agent. In short, we firmly believe that any argument, based on any such supposed analogy, is without a sure foundation, and any therapeutical

principles thereby derived are useless, however successful the *practice* may be.

The therapeutical application of electricity, constitutes the last and larger part of the work, and herein is the value of of the work; herein is what makes the book such us may be, with profit, in the hands of every practitioner of medicine. We doubt not here is a field, valuable and unexplored by a very large majority of medical men. There are practical facts and teachings here that every one should know, even if he does not make the subject a speciality.

There is, perhaps, a lack of that clearness and conciseness in stating cases, that we are accustomed to find in our leading medical literature; but the truth is there and deserves to be known. The reader will also notice a rather free generalization, in some parts, especially regarding treatment, that renders the book of less practical value. The author may thank, or forgive us as he may feel disposed, but we must quote his treatment of epilepsy. After quoting page by page from Marshall Hall, and theorizing for almost twenty successive pages on "spastic diseases," the sum of treatment is as follows:

"As regards the treatment of epilepsy, and of kindred affections, we are to direct the most powerful *modification of nervous nutrition*, whether electric currents shocks by successions of hot and cold water; by nervo-polarizing, or depolarizing medicines, as iron, iodine, and sulphur; or silver, arsenic, strychnine, and quinine; or by opium, conium, stramonicum, nicotine, and belladonna, in some way, and by all means, so as bear, directly or indirectly, on the identical spot or part of exalted excitability of both peripheric nerves and nervous centres, to strengthen, and hence to calm and fortify them."

Now we are friends of "general principles"—we were reared in medicine when such were taught; but we must remonstrate here. Reader, re-read the foregoing, and say if it is not comprehensive enough for all; but if you attempt a case of epilepsy you will be thrown somewhat on your own resources, or, in despair, send your patient to Dr. Garratt, who, comprehending the above, will doubtless cure "in some way, or by all means."

The author's treatment of ague is more explicit, and we venture to subjoin it, hoping to see any case of successful treatment reported:

First, the Place.—The patient, we presume, is in bed, in a room where the air is dry and warm, (not sitting up before the blaze of a fire, nor where a draft of wind is allowed to blow upon any portion of his body or limbs.) Second, the Time.—Just a little before the hour and minute for the invasion of the cold stage, shake, or rigors, is the time to work. Prepare the patient comfortably—wet the sponge electrodes in *very warm water*, or salt water, and see that the battery or machine works well; then commence *before* the *horripilatio* of yawning, stretching, sighing, "cold chills down the back," goose-flesh, and collapse of the features, *get the start*, (as in Faradaic tooth-extracting,) and maintain it, first by a current from the nape of the neck to the regions of the liver, stomach and bowels; next up and down the back; and then using *team electrodes* to Faradize the surface. When the chill is broken, repeat a daily *seance*, but at different hours, to fortify the invigoration."

We have extended our "notice" farther than at first designed. We commend the work to careful readers, and to the judgment of the profession it seeks to enlighten.

L. S. E.

New Medical Journal.—We have received number one of volume one, of the *Columbus Review of Medicine and Surgery*, published at Columbus, Ohio, W. L. McMillen, M. D., being its editor and proprietor. It is a bi-monthly of 96 pages, and is furnished to subscribers at two dollars per annum, payable in advance. In its mechanical execution the work exhibits a high degree of excellence, and the brain-work shows both capacity and a willingness to labor. The first number contains elaborate reviews of Todd on Acute Diseases, Draper's Physiology, and Stille's Therapeutics, written with much ability, and a clear appreciation of the merits of these works, and the other articles are of general and scientific interest to the profession. We trust that eminent success may attend this enterprise so auspiciously inaugerated.

TO SUBSCRIBERS IN ARREARS.

Many readers of the *Journal* are indebted to us on accounts of one, two, and three years standing. We have been extremely lenient in the matter of collections, knowing the difficulty of obtaining money that many have experienced during the recent period of financial depression; but the abundant harvest of the present season, throughout the entire Northwest, does away with all apology for a continuation of such remissness. Therefore, in the September number, we shall inclose to each indebted subscriber his bill, and we trust, that with this reminder, all will come promptly forward to pay us what is justly our due.

APRIL AND JULY MEETINGS OF THE HANCOCK CO. MEDICAL ASSOCIATION.

Warsaw, April 18, 1860.

The Association met pursuant to adjournment. The President being absent the Vice President took the Chair, and called the meeting to order.

Present—Drs. Coolidge, Hofmann, Hall, Hollowbush, Hay and Spitler.

The Association then went into the election of officers by ballot, which resulted as follows:

President—Dr. Charles Hay.

Vice President—Dr. J. K. Boude.

Secretary—Dr. A. Spitler.

Treasurer—Dr. J. W. Hollowbush.

On motion, Drs. Coolidge and Hofmann were appointed delegates to the National Medical Association, which meets in New Haven, in May next, and Drs. Hall and Hollowbush were appointed delegates to the Illinois State Medical Society.

The meeting then adjourned till 1 o'clock, P. M.

AFTERNOON SESSION.

The Association met according to adjournment.

Dr. Hay was then called on, and read a very interesting address on the following subject: "Can the European or Caucasian race arrive at fair physical and intellectual development in hot climates?"

A discussion ensued on the doctrines advanced in the address, which was participated in by Drs. Hollowbush, Hall, Coolidge, and Hay.

Drs. Hofmann, Hollowbush, and Spitler were appointed to prepare and read essays at the next meeting.

The Association, on motion, of Dr. Coolidge, unanimously passed a vote of thanks to Dr. G. W. Hall, for the very faithful and satisfactory manner in which he has discharged the duties of Secretary.

The Association then adjourned to meet in Carthage, the third Wednesday in July next, at 10 o'clock A. M.

A. SPITLER, Secretary.

CARTHAGE, July 18, 1860.

The Association met according to adjournment.

Present—Drs. Coolidge, Pierson, Hay, Boude, Hall, and Spitler.

An application was made by Dr. D. H. Mason, of Warsaw, to become a member of the Association, which was referred to a committee consisting of Drs. Pierson, Hall, and Spitler, who reported favorably to his reception, which report was adopted.

Cases of interest were then reported by Drs. Pierson, Coolidge, and others.

The Association then adjourned to meet at 1 o'clock P. M.

AFTERNOON SESSION.

The Association met pursuant to adjournment.

On motion, Dr. Coolidge was appointed to deliver an address to the Association at its next meeting.

Drs. Pierson, Hall, Boude, and Spitler, were appointed to read essays at the next meeting of the Association.

Dr. Hay then being called upon, delivered a very interesting address on "The best mode of improving the physical and intellectual condition of man," which was requested of him for publication.

Drs. Hall and Spitler were appointed a committee to have the address published.

On motion of Dr. Spitler, a resolution was passed that this Association memorialize our State Legislature, at its next session, to pass a law requiring the registration of marriages, births, and deaths, in compliance with the late action of the State Medical Association.

On motion of Dr. Coolidge, Drs. Hay and Spitler were appointed a committee to prepare a suitable memorial and present it at our next meeting for action.

On motion, the Association then adjourned, to meet in Carthage, on the third Wednesday in October next.

A. SPITLER, Secretary.

STARK COUNTY MEDICAL SOCIETY.

At a meeting of the physicians of Stark county, called for the purpose of discussing the propriety of organizing a Medical Society for the county, held at the office of Dr. R. Boardman, in Elmira, on Saturday, August 11, 1860, the following were present:

Elmira—Dr. E. R. Boardman, and J. G. Boardman, medical student.

Bradford—Drs. S. T. C. Washburn, and J. G. Lamper.

Wyoming—Dr. William Hayden.

Osceola—Dr. J. S. Pashley.

Dr. Lamper was called to the Chair, and Dr. Boardman chosen Secretary.

A motion prevailed to organize an Association to be known as the Stark County Medical Society.

The following were chosen as permanent officers of the Society:

President—Dr. E. R. Boardman.

Secretary—Dr. J. S. Pashley.

Treasurer—Dr. Wm. Hayden.

Censors—Drs. J. G. Lamper, S. T. C. Washburn, William Hayden.

On motion, the Code of Ethics of the National Medical Association was adopted for the government of the Society.

The following persons were appointed as a committee to prepare Constitution, By-Laws, and Fee Bill for the Society, to report at the next meeting: Drs. Boardman, Pashley, and Lamper.

On motion, Jas. G. Boardman was admitted to membership as a medical student.

The Secretary was directed to extend an invitation to all regular physicians in the county, with their students, to unite and co-operate with the Society.

On motion, the plan of raising necessary funds by equal assessment was adopted.

Dr. E. R. Boardman, of Elmira was appointed to deliver an address at the next meeting.

The Secretary was directed to furnish copies of the proceedings, of the meeting, to the *Chicago Medical Journal* and *Stark County News*, for publication.

Adjourned to meet at Wyoming, on Monday, September 3d, 1860, at 10 A. M.

J. S. Pashley, Secretary.

RUSH MEDICAL COLLEGE.

At a meeting of the students attending the Summer Course of Rush Medical College, session of 1860, a committee of the class presented the following resolutions, which were unanimously adopted:

Resolved, That we have been highly benefitted by the instruction we have received during the term now closed, and that we fully appreciate the earnest and efficient efforts, made by each member of the staff, in their respective departments.

Resolved, That the clinical instructions we have received at the City and Marine Hospitals, and at the Chicago Eye and Ear Infirmary, have been a source of practical advantage to us, and that we feel under many obligations to the members of the staff who have had charge of these institutions, also to those who, by daily examinations and personal efforts, have so materially aided us in our studies.

Resolved, That we tender our sincere thanks to our instructors, for their uniform kindness and courtesy toward us, and that it shall be our constant endeavor to attain a high position in the profession, thus, in some degree, to reflect the beneficial influence which their example has exerted over us.

Resolved, That a copy of the above resolutions be sent to the Secretary of the Summer School, and to the *Chicago Medical Journal*, for publication.

Z. P. HANSON, Chairman.
PERCY McALPINE, M. D.,
ROBERT M. LACKEY,
JOSEPH B. SHERMAN,
AUGUST KEEN,
CASPAR MAHLER,
Committee.

Chicago, June 23, 1860.

DIPHTHERIA.

Chariton, Iowa, Aug. 13, 1860.

Editors Chicago Medical Journal:

We have, for a time, been in a most destructive epidemic of diphtheria—destructive, because treated improperly, or not treated at all. It is confined to one township, on the western line of the county, ordinarily one of our most healthy neighborhoods. In a sparsely settled country, it leaped across rolling, unimproved prairies, attacking, with great virulence, whole families who had hitherto been strangers to disease.

If called when the yellowish white spots first make their appearance on the tonsils, I have always succeeded in checking it; but have found great difficulty in successfully treating cases of some days' standing.

I have used, with good effect a sat'd solution of nitrate of silver to the tonsils, &c. I have used quinine and chlorate of potash plentifully. I prefer the mur. tinc. of iron to the potash. I have used mercury sparingly but have seen no bad effect from it.

When the hurry is over I may give you some particulars.

Yours, &c., J. R. Jay.

ILLINOIS STATE MEDICAL SOCIETY.

The subscriber respectfully requests the members of this Society, and the profession at large, to assist in accomplishing the object for which the Special Committee on Diseases of the Eye was appointed.

Reports of ophthalmic cases and papers upon any subject in this department of medical science, are solicited.

The Committee particularly request papers upon "The peculiar causes of conjunctival inflammation, in different parts of Illinois and the adjoining States; as also the history of cases of sympathetic ophthalmitis in one eye following injuries and chronic inflammation of the iris and choroid of the other eye."

It is hoped the profession generally will take interest in this important subject, and forward all communications to the Committee before April 1, 1861.

E. L. Holmes,
Chicago, Box 2175.

Correction.—In the list of graduates of Rush Medical College, for the session of 1859–60, published in the May number of the Journal, a typographical error occurred in the name of Dr. Barry; it should read, Ed. L. H. Barry.

☞ Messrs. J. H. Reed & Co., whose card will be found on the cover of this journal, have recently fitted up rooms over their store, exclusively for their surgical and dental instruments. They have been compelled to make this change owing to the increase of trade in these goods, as also the necessity of more room to exhibit properly their large stock of instruments. They keep everything needed by the profession and have now a better arrangement for showing new materials as received. They request us to say that they shall always endeavor to keep all improvements and new instruments, and will be pleased to show their stock whether parties wish to purchase or not.

"The Medical Department of Baker University," is the name of a new school announced as established at Leavenworth, City, K. T.

ITEMS.

Dr. J. E. Holbrook has resigned the Chair of Anatomy in the Medical College of the State of South Carolina.

A fifth medical school has been organized at Griffin, in the State of Georgia, under the name of the Middle Georgia Medical School.

The proceedings of the Sixty-eighth Annual Convention of the Connecticut Medical Society, indicate the condition of the profession in that State to be vital and progressive.

G. M. B. Maughs, M. D., senior editor of the *Kansas City Medical and Surgical Review*, has accepted the appointment of Professor of Physiology and Chemistry in the Medical Department of the Missouri State University, at St. Louis.

The *Cleveland Medical Gazette* and the *Cincinnati Lancet and Observer*, have, in effect, been merged in one; containing, as they do, the same matter, though retaining their original names, and purporting to be issued from different cities.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. October, 1860. NO. 10.

Original Communications.

ARTICLE 1.

NOTES RELATING TO THE EXTIRPATION OF THE PAROTID GLAND.

BY DANIEL BRAINARD, M. D., PROFESSOR OF SURGERY IN RUSH MEDICAL COLLEGE.

The discussion of the question of the possibility and utility of extirpation of the parotid gland will seem at first sight to imply a degree of ignorance on the part of the profession in the region in which it occurs incompatible with a respectable degree of anatomical and surgical knowledge. Nevertheless, here, as elsewhere, it is rather the result of personal objects than of scientific zeal, raised for the purpose pulling down a school or an individual, rather than to establish any new doctrine in surgical practice. Hence I might be expected to pass it by in silence, but the discussion of any question of science is so much more agreeable than the combatting of stale notions relating to medical politics, that I choose to regard it in a serious light, and treat it is as if we were still at a period when the common carotid artery had never been tied, nor the upper and lower jaw been removed.

Prof. Granville Sharp Patteson, in a lecture delivered January 22d, 1833, p. 9, says: "If after I shall have shortly stated the facts which the progress of surgery has, within the last few years furnished, to establish the practicability and safety of extirpating a diseased parotid gland, the possibility of performing this operation should be doubted even by a junior student, I shall only say that his case is hopeless."

Professor Mutter, in his Notes to Liston's Surgery, 1846, p. 311, says: "During my recent visit to Europe being anxious to ascertain the estimate placed upon the measure by the best authorities there, I made the subject one of diligent inquiry. I discovered that much difference of opinion existed as to the utility of the operation, but I found none who doubted the possibility of its execution."

Vidal says, "The question (of the possibility of the extirpation of the parotid gland) in my judgment, need not be discussed at the present day." Traite de Pathologie Externe, vol. 4, p. 71.

Prof. Gross, in his recent work on surgery, says it is folly to deny the possibility or the propriety of extirpating the parotid gland, at the present day.

Notwithstanding these opinions, there are still those who persist in discussing this opinion, as if had never been settled; and recently the surgical and anatomical departments of the Lind University have chosen this as the point of attack upon the veracity and professional skill of the writer of this article.

Without, therefore, taking time and space, which might better be devoted to other points, I propose to lay before the profession those facts well known and accessible to all, and of which no surgeon should be ignorant, showing the perfect practicability of the operation.

I do not propose to discuss its utility except incidentally. There are some who dispute the utility of removing the female breast for cancer. The general practice of the profession is against them, although their reasons are strong, quite as much so as those which could be urged against the same operation on the parotid gland.

The question of its removal is one of indication only.

There are many cases in which the gland is involved in which no operation should be thought of. I have myself seen two cases of the kind in which no operation was advised. I certainly should hesitate to undertake the operation in cases so formidable as those in which Profs. Goodlad, Carmichael, Klein, McClellan, and others, operated successfully.

But in other cases where the disease is more limited, the operation, although formidable, is by no means excessively difficult in its mechanical execution. Cases of this kind are sometimes met with, and they are described by Nelcton as the most common form of cancer of the gland.

"The tumor remains for a long time small, indolent, and of a stony hardness; it is fixed as if wedged in the parotid notch. It presents no inequalities on the surface, and no alteration of the skin. It is developed from above downward, and its greatest diameter is transverse."

"This tumor increases but slowly, and it is but rarely, according to Boyer, that it quickly acquires a large size, and that it gives rise to the sensations peculiar to cancer." *Elements de Pathologie Chirurgicale*, tona 2, p. 725.

The objections to the reports of the removals of this gland date from an early day, before the ligature of the carotid artery was thought of, and when the danger of wounding the external carotid was sufficient to deter surgeons from undertaking an operation. They are mostly anatomical, and refer to the deep situation and important relations of the organ. Experience has sufficiently demonstrated the fallacy of such objections. There is no wound fatal to life necessarily made in removing the parotid gland.

Critics have objected that reports of this operation often state that there is little hemorrhage, which, it is alleged, is inconsistent with the idea of its extirpation. Now the principal artery involved in tumors of the gland when of small size is the continuous trunk of the external carotid, which divides higher up into the temporal and internal maxillary arteries. Owing to anomalies this may be deficient, or of small size, but even if of its usual dimension, it does not necessarily give great hemorrhage; firstly because the surgeon, knowing

its situation, may secure it by ligatures before dividing; secondly, because an artery of that size, when torn across, give little or no blood. This was noticed by Dr. George McClellan in one of his cases. If any not familiar with such operations doubt of this let them refer to the effect of torsion of the arteries or to those cases of which four or five are now on record in which avulsion of the arm and scapula was produced by mechanical force, the subclavian and axillary arteries, giving little or no blood when thus torn across.

The amount of hemorrhage will, in such an operation depend upon the vascularity of the parts and the size of the tumor. I have removed about twenty tumors from the region about the angle of the jaw, including several of portions of the jaw itself. Of these, two only were for disease of the gland.

In some of these operations the bleeding was profuse, much more so than in the two for removal of the gland itself. McClellan states the same as true of his experience. He removed the gland eleven, and other tumors situated in connection with it, thirty times.

The manner of performing the operation also influences the loss of blood. By tying the large arteries before dividing them, and making the dissection wih a blunt instrument, large tumors may be removed without great hemorrage.

Another objection to the reports of such operation is the neglect to state that the facial nerve was divided, or that paralysis occurred. Now, if in any such operation, the face were stated not to be paralyzed, or the external carotid artery, not to be divided, I should doubt if the parotid gland could have been removed, notwithstanding it may be taken away in the healthy state on the dead subject and leave both these parts. But the neglect to give a full description of an operation does not altogether discredit it, and after the division of the nerve the paralysis gradually disappears or diminishes, probably from other nervous branches supplying its place. This has been noticed by Sir Astley Cooper and others.

Finally, it has been objected that surgeons have mistaken other glands for the parotid. It may be well to notice the

distinction between the question of primary disease of the parotid, and that of its removal by operation. It might be true that the gland is not subject to become primarily diseased, and yet it might require to be removed for disease extending to it. What difference, in a purely surgical point of view, can there be between a cancerous growth originating a lymphatic gland situated within the parotid and extending to this latter, causing its absorption, and the same growth originating in the parotid and extending to the lymphatic glands? Scirrhus of the female breast sometimes originates in the skin. —Velpeau *Traite des Maladies de Sein*, p. 437.

But this in no wise changes its nature nor obviates the necessity of removing the whole gland when this has become involved. I have, in three cases of disease of the lower jaw, removed the half of it, with every vestige of both the parotid and submaxillary glands, which were perfectly involved in the disease mass.

It will be noticed that Nelaton describes scirrhus of the parotid gland as developing itself from above downwards. McCellan pointed out that in some cases of disease of the gland it gradually raised itself out of the triangular space in which it is placed, so as present fewer difficulties in removal than when in a healthy state. Dr. N. R. Smith speaks of its even becoming "pediculated." Pancoast attributes to Randolph the first observation of this fact.

In the first operation which I performed, the finger passed under the gland from below upwards with a facility which surprised me. The disease was a scirrhus of the gland.

While admitting the difficulty of distinguishing between cases of disease originating in the tissue of the gland and those extending to it. I am not prepared to believe that any well informed surgeon need be in error in regard to the parts actually removed by operation. I am in the habit, after all such operations, of examining the tissues with a magnifying glass, of having them examined with the microscope, and of carefully inspecting the whole surface of the wound for any suspicious tissue. I generally, and always unless some reason for a different course appears, defer closing the wound until

the oozing of blood has entirely ceased. By thus carefully proceeding, mistakes can be, for the most part, avoided.

In the lecture referred to by a Professor in the Lind University, the opinion was advanced that the parotid, with the exception of enchondroma, is absolutely exempts from disease. This assertion was not called in question by any one except Dr. Paoli, who, in a recent No. of the *Louisville Journal*, has published a valuable article on the subject.

This is so gross an error that it ought to be at once detected by any medical practitioner, and in order to place the subject in its true light I here transcribe, from my notes for lectures, authorities sufficient to leave no doubt in the mind of any person desirous of learning the truth on the subject.

Dr. J. H. Bennett relates a case of disease originally in in the parotid gland, having all the appearance of malignancy. Mr. Syme advised against an operation. The patient died. Mr. Bennett found no cancer cells, and considered it cancroid. He also quotes a similar case from M. Sedillot, in which a tumor, having all the characteristics of malignancy, ulcerated and soon entirely destroyed the parotid gland, but as no cancer cells were found, Sedillot considered it cancroid. This also proved fatal.—On Cancers and Cancroid Diseases; Edinburgh, 1849, p. 83, *et. seq.*

Dr. Lebert (*Traite Practique des Maladies Cancereuses*, p. 703) says: "We have observed, for our own part, cancer of the parotid gland three times." "The developement, march, termination, and treatment of cancer of the parotid, are about the same that we have indicated for cancer of the lymphatic glands." "But it should should be remembered here that cancer of the parotid, in its progress, involves the jaw, and in case of extirpation all the part of the bone diseased should be taken away."—Ib., p. 704.

"The tissue of the parotid sometimes becomes, though rarely, the seat of a scirrhus degeneration." "Extirpation is the only means that we can oppose to this disease." "When the whole of the parotid is to be removed, the plan which appears to us preferable is that which was proposed by M. Begin, (Roche, Sanson, and Lenoir.—*Nouvaux Elements de*

Pathologie Medico-Chirurgicale, p. 115, vol. iii. Paris, 1844.)

Nelaton, in the second volume of "Pathologie Chirurgicale," page 714, *et. seq.*, gives a very full and succint review of the diseases of the parotid. Besides wounds and salivary fistulae, he describes:

1. Abcesses, which among other points of origin "may be in the salivary gland itself."

2. Concretions and salivary pouches. "These concretions," he says, "are liable to obstruct the flow of saliva so that these result sometimes in a voluminous tumor, oblong, indolent, circumscribed.

3. Cysts; of which an example is quoted from the bulletin of the Academy of Medicine, vol. 1, p. 56.

4. Hypertrophy. Of this two examples are quoted from A. Berard and Sabbatier.

5. Fibro-fatty and Melanotie.

6. Sanguine tumor.

7. Cancer. There are some cases where the parotids present a cancerous degeneration. Mekel has dissected a certain number, and Berard reports some examples in his thesis, already cited. When the gland itself is degenerated, we find usually a scirrhus instead of an enaplalous tumor. This tumor remains a long time indolent, small, and of a stony hardness.

Treatment.—The extirpation of the tumor is the only means of relieving the patient. Neither its considerable volume nor its adhesion to subjacent parts, nor ulceration of the skin ought to be considered absolute contra-indications to the operation.

The facts which render it probable that the gland has been entirely removed, are those of Warren, Kirby, Milman, McClelland Preiger, Raymond, Charmichael, and Gensoul. Those which prove that the gland has certainly been removed are, according to M. Berard, those of Randolph, Smith, Lisfranc, Gensoul, Beclard, Bramberg, p. 73.

Chelius.—The removal of the parotid gland belongs to the most difficult and dangerous operations, as the close connec-

tion of the gland with the important neighboring parts render necessary the wounding of very important vessels and nerves, etc. P. 523, vol. 3.

Cases of the removal of the parotid gland are related by Preiger in Von Graffae and Walther's *Journal*, vol. 2, p. 454, and in *Rust's Magazine*, vol. 19, p. 303.

Barendts, ib. vol. 13, p. 159.

Schmidt, ib. p. 312.

Weinhold, *Sulzberg Med. and Chir. Gazette*, vol. 4, p. 63; 1823.

Beclard, Archies Geerales de Medicine; 1824. Vol. 4, p. 62.

Chelius, Heidleberg Clinical Annals, vol. 2, p. 2.

Kirby, J., Dublin, 1825.

In the case of Dr. Preiger, the tumor weighed two pounds and three quarters, and the operation lasted seven minutes.

In summing up this testimony on the subject in 1842, Reese, in his Notes to Samuel Cooper's Surgical Dictionary, p. 259, vol. 2, said:

"The parotid, in a scirrhus state, can be entirely extirpated."

"In Dr. Preiger's, Mr. Kirby's, and of McClellan's cases, the trunk of the external carotid was left untouched."

Mr. Goodlad's case is reported in the Med. Chir. Transactions, vol. 7, p. 112, and vol. 8, p. 582: "The disease extended from the external canthus of the eye above, to within three quarters of an inch of the clavicle below, and some idea of the depths of its attachments may be formed, when it is known that the whole of the parotid gland is involved in it." "*The parotid gland was entirely removed.*—Samuel Cooper's Dictionary, p. 273, vol. 1.

In vol. 2, p. 101, Transactions King's and Queen's College of Physicians, Dublin, 1818, is reported Mr. Charmichael's case, "The tumor was very large, involved the parotid gland, and connected with the transverse process of the atlas, the basis of skull, the meatus auditorius, mastoid process, and the angle of the jaw." The case was successful.

Klein operated on a women of seventy, "The swelling

extended from the ear to the shoulder." "The internal carotid artery and the par vagum were left quite bare." "The bleeding was very inconsiderable." "The operation was so successful that in the beginning of the third week the wound was healed.—Ib.

Beclard's case was for a scirrhus of the parotid alone. Samuel Cooper says the following inferences are deduced from this case: 1. "The reality of the scirrhus of the salivary glands is confirmed." 2. "The possibility of removing the parotid demonstrated."—Ib. p. 274.

This case proved fatal, and an examination was made after death, so that no dispute concerning the operation being the entire removal of the parotid gland could arise.

There is no surgeon who did so much to establish the operation of extirpation of the parotid gland as a legitimate one in surgical practice, as the late Dr. Geo. McClellan, of Philadelphia. Much of the acrimony which has been introduced into this discussion has no doubt arisen from that controversy in a great measure personal, and foreign to the purely scientific question, into which he was drawn by the attacks upon his character as a surgeon. These attacks, prompted by the same motives, are still occasionally made upon those who propose the operation.

Dr. McClelland says, (Principles and Practice of Surgery, p. 352,) "I have extirpated *eleven entire parotids*, in various conditions of organic disease, and only one of my patients died in consequence of the operation."

"The next case which occurred to me I turned over to my son, who successfully removed an enormous tumor, involving the whole parotid, an immense mass of lymphatic glands, extending down the neck, with the common carotid artery, the internal jugular vein, the par vagum, spinal accessary, and portio dura nerves. The patient, George Andrews, of Washington, Pa., went home in four weeks, with the wound entirely healed."

This case is worthy the attention of those who think the relations of the gland to the great vessels are such as to render an operation impracticable, even when it does not touch them.

But this appears to be the only case of operation on record in which those vessels were involved. In one of Dr. McClelland's cases the external carotid did not require a ligature. "Before he proceeded farther he isolated the continued trunk of the external carotid just as it was entering the tumor together with the descending veins, which accompanied it, and, instead of cutting them across, in the usual manner, he tore them out from the body of the tumor with the thumb and fore-finger." The vessels bled for a moment only, and ceased without a ligature.—Ib., p. 334.

In one of Dr. McClelland's cases, (Mr. Socher,) death took place from an abdominal disease, eighteen months after the operation, and the body was carefully examined. No trace of the parotid gland could be detected.—Lecture on the Parotid Gland, by G. S. Pattison, 1833, p. 13.

The case of John Bell is related in his Principles of Surgery, New York, 1810, p. 507, *et seq.*: "The tumor, of the size of a goose,s egg, was once removed with about half the gland. It returned and Mr. John Bell removed the whole of it.

Liston (Lectures on the operations of Surgery, Philadelphia, 1846, p. 308,) says, on the subject of of Diseases of the Neck: "Tumors of this region occur in different aspects and corners of it. You meet them at the upper part of the neck and at the angle of the jaws. They sometimes arise from a degeneration of the salivary glands; but that is not a common occurrence." "Sometimes they are very firmly fixed, but after all they come out easily enough."

Colles, who was one of those who, for anatomical reasons, believed the removal of the gland impossible, (was it because Charmichael had performed the operation?) says, under the head of Salivary Glands: "They are sometimes the seat of scirrhus."—Lectures on the Theory and Practice of Surgery, Philadelphia, 1845; p. 107.

Rokitansky enumerates, among the diseased conditions observed by himself in the parotid, inflammation, cysts, fibrous, cartilaginous, and osseous growths, etc.

"Carcinomatous disease occurs in the parotid and salivary

glands, and especially in the parotid, in the shape of scirrhus and medullary cancer.—Path. Anat., vol. ii, p. 141.

Warren gives a minute and accurate description of the tumors of this gland:

"The parotid gland is the seat of two species of induration, one in the lymphatic glands situated about it, which is quite common; the other a genuine induration of the gland itself, which is quite rare."

"The induration or scirrhus of the parotid gland begins deeply in the space between the branch of the jaw and the mastoid process. Its confined situation renders it painful at an early period. Being confined on the sides by bone, it extends outwards and downwards, assuming a conical form in all the cases which I have seen. This tumor is of a scirrhus hardness." "Ulceration does not take place in a long series years."

"The scirrhus state of the parotid being incurable by remedies, a surgical operation is the only resource. An operation requiring some degree of skill, coolness, and a knowledge of anatomy."—On Tumors, p. 286, 287.

On the subject of these diseases, Dr. Gross says: "All the salivary glands are not equally liable to morbid alterations. The parotid is infinitely more frequently affected than the others." "Parotitis, under favorable circumstances, may terminate in suppuration. Of this I have witnessed a considerable number of cases, in two of which an opportunity was offered of making an autopsic inspection." Gangrene has been known to seize on the parotid." "The salivary glands, especially the parotid, are subject to atrophy." "True scirrhus is occasionally met with in the parotid, as are also encephaloid and melanosis."—Path. Aut., p. 518, 519.

Baron J. D. Larry removed the parotid gland for cancerous disease, March 19, 1841. Numerous enlarged lymphatic glands were discussed by a long course of treatment when "there remained the parotid tumor of the form and size of a large hen's egg, deeply situated between the ear and the ramus of the jaw. It was soft at the center, hard at the circumference, and slightly movable.

On the 70th day the patient was entirely recovered, the sensibility and the movements of the side of the face, which had been destroyed at first, were restored in part.

In concluding the report of this and a case of removal of the submaxillary gland, M. Larrey remarks "From these two examples of complete success obtained by extirpation of salivary glands, (the parotid and submaxillary) we may conclude that this extirpation is practicable, and may be performed without danger to the life of the patient."—*Memoire sur L'Extirpation des Glands Salivaire*, Paris, 1841; pages 21 and 22.

From these authorities alone, (and many others might be cited,) we may safely conclude that the parotid gland is subject to disease, and that its removal in favorable cases is both possible and advisable.

I add a list of nearly one hundred operations of the kind, omitting above fifty others, concerning which my information is too limited to enable me to judge of their value. Some of those inserted have been objected to on grounds which appear insufficient. Of those cited from American sources, I see no reason to doubt the correctness of a single one. I have omitted eleven cases of this kind on account of insufficiency of the details:

Chelins	8		Brought forward	20	
Preiger	1	1826	Samuel White	1	1808
Barendts	1		Geo. McClellan	11	
Schmidt	1		Klein	1	
Weinhold	1		J. H. B. McClellan	1	
Beclard	1	1823	Gensoul	2	1828
Goodlad	1		Seibold	1	1781
Charmichael	1	1818	Scultetus	1	
Lisfranc	1	1826	Gooch	1	
Manfredini	1		Behr	1	
Idrae	1		Palfin	1	
Kirby	1		Verduin	1	
Busche	1	1827	Acrel	1	
Carried forward	20		Carried forward	43	

Brought forwaad	43	Brought forward	67	
Astley Cooper	2	L. Herminier	1	
Dav. Prince	1	Heyfelder	1	
J. C. Bradbury	1	Berret	1	
J. C. Warren	1	M. N. Fouthern	1	
Mott (several)	3	A. Magri	1	
N. R. Smith	1	Hendricks	4	
Randolph	1	Eulenberg	1	
Roux	1	Stedman	1	
Cordes	1	Awll	1	
Warren (Elder)	1	Eckstrum	1	
J. D. Larrey	1	Anisaux	1	
J. C. Bradbury	1	McGregor	1	
Van Sweiten	1	Widmer	1	
Roonhuysen	1	Ohle	1	
Gottfried	1	Dieffenbach	1	
Errhart	1	Wallman	1	1828
Scharschmidt	1	Bendz	1	1838
Soucramp	1	Naegle	1	1830
J. B. Seibold	1	J. Bell	1	
Moulinia	2	Brainard	2	
Carried forward	67		91	

ARTICLE 2.

SYMPATHETIC OPHTHALMITIS, AND CERTAIN FORMS OF CHRONIC IRITIS.

BY E. L. HOLMES, M. D., CHICAGO.

(Continued from page 513.)

II.—Chronic Iritis.

Inflammation of the iris must always be regarded as one of the most grave diseases to which the eye is liable. It terminates, when not arrested by suitable treatment, invariably,

almost, with great diminution or complete loss of sight. Fortunately, the early stages of this affection, *uncomplicated*, yield satisfactorily, in a majority of instances, to appropriate remedies, and the eye escapes without permanent injury.

Still, we often meet with patients suffering from chronic iritis and the consequent impairment of vision. For, with the most careful attention on the part of the physician and patient, the inflammation will occasionally become chronic and obstinately resist the influence of every remedy; patients will not unfrequently apply for advice who have been unskillfully treated by ignorant practitioners, or who have wholly neglected medical treatment till a cure had become entirely hopeless; patients will often be imprudent and from necessity or carelessness, expose themselves to the exciting causes of relapse. It is well known that the iris, during convalescence from an attack of inflammation, is for a long time liable to relapse from slight causes, even when it has, to all appearances, assumed its normal aspect. Two of the severest cases of secondary iritis I ever saw were caused by acknowledged imprudence on the part of the patients themselves. The eye in each case, had almost entirely recovered. Exposure to cold winds and bright sun-light reproduced the most violent symptoms, which continued for a long time, and finally left the eye with vision permanently injured. From these, and perhaps other causes, every surgeon with extensive ophthalmic practice, meets with a large number of cases of chronic iritis. These cases, when apparently relieved, are exceedingly liable to relapse, each attack leaving the eye in a worse condition that before.

Von. Graefe, of Berlin, after a careful investigation of the subject for several years, with an opportunity of analyzing a large number of cases, made the important discovery *that adhesions of organized lymph between the lense and iris, was the predisposing cause of relapse in chronic iritis.* However difficult may be the explanation, there is no doubt of the fact, since the observations of v. Graefe have been numerous and have been verified by many ophthalmologists in England and on the continent of Europe. With regard to this disease it

may be stated generally, that "Iritis, which has healed without adhesions between the lense and iris, is comparatively seldom subject to relapses: Iritis, with only minute elastic adhesions, will occasionally be in danger of secondary attacks: but when the disease is followed with extensive adhesions, which withstand the influence of atropine in dilating the pupil, it is almost uniformly liable to relapse. There is scarcely an exception to this rule, when the whole pupilary edge of the iris is attached to the lense, or when the pupil is much contracted and closed with lymph."

In these cases the relapse occurs from the slightest cause, or even from no apparent cause. The patient experiences, especially at night, dull pain, to a greater or less degree, in the eye or in the temple and brow. There is usually photophobia, with tenderness on pressure over the region of the ciliary processes. The sclerotia, near the circumference of the cornea, assumes a light red or pinkish color. The iris, as also the aqueous humor, becomes discolored. These symptoms increase in severity, or possibly continue for a long time without much change, annoying the patient, and even when only one eye is affected, rendering the other eye, (by sympathy,) almost entirely useless, till relief is obtained, which is, in most instances, merely temporary.

In these cases, as in the cases of foreign bodies in the globe, the tissues which are principally implicated are the iris and choroid. Disorganization of these and the other structures of the eye, often progresses till the eye becomes atrophied and completely amaurotic, when all inflammatory action may possibly cease. In cases of penetrating wounds of the eye, with persisting inflammation and obstinate chronic iritis, with total loss of vision, the removal of the affected eye, as we have stated, is probably the best course of treatment for the preservation of the other eye.

But in chronic iritis, (irido-choroiditis,) *with extensive adhesions of lymph*, where there is still a certain amount of vision, or perception of light, the treatment which v. Graefe adopted, and which he employed in a large number of cases

before publishing his results, consists in removing about one-sixth of the iris, as in forming an artificial pupil.

Why this operation should afford so great relief in so many cases, is somewhat difficult to explain. We will not tax the patience of our readers with a sketch of mere theories, but refer those interested in the subject to the paper of v. Graefe, in particular "Archiv f. Ophthalmologie," vol. ii, part 2; to the London Ophthalmic Hospital Reports, vol. i, pages 57 and 216, and also to Desmarres' work on Diseases of the Eye, vol. iii, page 371.

At present it is our object simply to state the fact that in very many cases after the operation, the conjestion diminishes, the eye becomes less painful, the iris and aqueous humor assumes a more natural aspect, the organized lymph disappears, and the vision is restored, to a greater or less extent, according to the previous condition of the eye.

The operation, although simple, requires considerable care and delicacy of manipulation, and should only be performed after the more acute symptoms have somewhat subsided.

It is usually advisable to administer chloroform, to insure perfect control over the movements of the eye. A small incision, a line or two in length, is made into the anterior chamber, by passing the point of a lance-like knife through the sclerotic a half line behind the cornea. With care there is no danger of entering the posterior chamber, since the plane of the iris lies behind the union of the sclerotic and cornea. Through the opening thus made a fine pair of curved forceps is passed as far as the pupilary edge of the iris, for the purpose of seizing and withdrawing a portion of this membrane, which should be excised close to the cornea, by means of a pair of scissors. When the whole cornea is transparent the lower and inner portion of the iris should be selected for removal. In cases of opacity, the artificial pupil should, of course, be made behind the most transparent portion of the cornea.

After the operation, the lids should be kept closed for three or four days, by means of strips of delicate plaster, and the eye surrounded with wet compresses.

There is very little danger of subsequent inflammation. In three cases of my own, and in many cases which I have seen under the care of others, I have never observed any ill effects from the excision of a portion of the iris, as above described.

It is of great importance to the patient that the operation be performed before the disease has too far advanced. Whenever there is atrophy of the globe or whenever the posterior chamber is separated from the anterior by occlusion of the pupil from organized lymph, forcing the iris anteriorly towards the cornea, an operation seldom affords relief.

In the last number of the *Journal* we called the attention of its readers to a few facts regarding the *prevention* of sympathetic ophthalmitis. In reference to the *curative* treatment of this disease, when it is once established, we have only to add that there is scarcely a hope of benefit except from the excision of a portion of the iris. In many instances the congestion and neuralgic pain can thus be reduced and loss of vision prevented. It is almost needless to add that this operation should be preceded by the removal of the eye-ball primarily affected.

We earnestly urge upon our readers a careful consideration of the subjects of this paper. Although there are, comparatively, few patients suffering from the diseases of which we have spoken, it must be remembered that every physician *may* meet with them, and in more than one instance, by skillful treatment avert so great a calamity as blindness.

ARTICLE 3.

NERVOUS AGENCY IN INFLAMMATORY ACTION.

BY L. S. ELLIS, A. M., M. D., CHICAGO, ILL.

It may not be my privilege to present anything new, unheard, or unthought of, on the above topic; but I hope to present existing knowledge and hitherto expressed opinions,

scattered through more modern medical literature, so as to make them bear more directly on therapeutic measures and curative appliances. Thereby a sound and immovable basis will be found for principles in medical treatment which are fast gaining the ascendency at the present time. Greater revolutions transpire neither in the moral or political world, than constantly and almost imperceptibly occur in the medical profession. There is no principle so well founded as not to bear and require an occasional review in the accumulated light and labors of shining and laborious men in our ranks. Ovservers multiply in every department; the storehouse is rich in their accumulations; gleaners and gleanings are abundant, and minds are not wanting who comprehend all these, and will, out of all this apparently confused mass, bring out a system so in accordance with nature's laws, as that our ministrations for her relief shall be more and more in harmony therewith. Dr. Todd has well said, "It will not be affirmed by any one, that the doctrine of a science so abstruse and so difficult as pathology, should not be reviewed and reconsidered from time to time. There never was a period when the candid and ample reconsideration of general pathology, promised more fruitful results than at the present time. Our vastly extended acquaintance with anatomy and physiology, the greatly enlarged security of the basis on which the knowledge of function rests, the much increased accumulation of facts of clinical history, all afford the most important data for new inductions." Actuated as he was by such comprehensive views, we lament that his light, so brilliant, has so soon gone out, and labors so enthusiastic have so soon terminated. The light of life has indeed gone out. The light of his mind shines with no diminished lustre, and contributes to establish wiser physiological and pathological principles and more successful remedial appliances.

My earliest lessons learned about inflammation embraced the question duly considered, as to whether imflammatory action consisted in increased or diminished action in the vascular system, and as determined, blood-letting took its place among general principles as a stimulant or sedative. "Sthenic

or asthenic" were as household words, and doubtless have been, and are, words of mighty import in the minds of many of the teachers and the taught of our profession. Information acquired from the clinical experience of others, observations in practical life, and more extended research, carried the conviction that the "*Fons et origo*" of inflammation must be sought behind any increased or diminished vascular action. The first visible change in muscular contraction, is a shortening of the muscular fibre, but the real primary change is in the nervous filaments associated with it. The nervous system has an immediate influence upon all the molecular changes occurring in the system, whether of nutrition, secretion, &c., or their abnormal action, constituting inflammation, or disease in any of its protean shapes. I shall assume, and endeavor to prove, that *nervous irritation is the primary change in the pathology of inflammation*, and that all consequent changes occurring in the vascular system or other structures, are but sequences, and that we must seek for the relation of disease and treatment in this primary nervous change. In support of the foregoing proposition I shall adopt the following order in argument:

First—The Anatomy and Physiology of the ultimate nerve fibres, and of the capillary system.

Second—Microscopic Appearances in Inflammatory Action.

Third—Effect of Irritation at the centre or along the course of the nerves.

Fourth—The Mode of Action of Remedial Measures.

Fifth—Opinions of Authors and Teachers.

Sixth—Practical Inferences.

It may not be amiss to contemplate the nervous system, embracing the brain, spinal cord, ganglia, and filaments, as the "neuro skeleton." The other structures, such as bones, muscles, blood-vessels, &c., stand as supports, instruments, and ministers to its wants and destiny. All other functions are but subordinate to the controlling influence of the nervous power. A portion of the nervous system, ever vigilant in duty exerts its influence in the growth of tissue, and does its part in maintaining the integrity of the whole from never-

ceasing waste. Other filaments stand as myriads of sentinels on the outposts, to guard the body as the mind's instrument. Others, still, as conveyors of special sensation, educate the mind for a higher sphere and a noble destiny.

The anatomy of the ultimate nerve fibre is still involved in no little obscurity. Dr. Draper says that "the nerve fibres terminate in various ways. Their ends may thin out and become free, or they may form a loop and so return back in their course."—Physiology, p. 263.

It is not unlikely that the nervous distribution to the capillary system is accomplished by one or the other of the means mentioned by Prof. Draper. The hindrance from that obscurity regarding their anatomical structure, is overcome in a great measure by physiological research, and the phenomena of nutrition, secretion, &c., prevent a necessity for the presence of nerves, for their influence in these molecular changes, ever varying from impressions on the nervous system. "It can scarcely be doubted, that it is by some influence exercised over the molecular actions, to which the blood is subject in the capillaries, that the nervous system can operate on the functions of nutrition, secretion, &c., and this influence may not be improperly termed *vital*, if, by so designating it, we merely imply that its nature and mode of operation are unknown, but that it is closely connected with those actions which are altogether peculiar to living beings. All the facts which bear upon the question of the connection between nervous agency and the forces maintaining the capillary circulation, have an equal relation to the functions of nutrition and secretion in general; and as already shown the nervous system also influences these by the control it exerts over the diameter of the blood-vessels."—Carpenters Phys.

While thus we have an influence exerted over the phenomena of nutrition and secretion in their normal operations, we have a like influence, which, if disturbed, will exert a power to disturb and modify nutrition and secretion. This influence is sometimes exerted in exciting, sometimes checking and modifying these functions. Thus every one is familiar with he effects upon the vascular system of severe concussion of

the brain. So with mental impressions—nervous anxiety has a marked influence over these functions.

So delicate and complete is the arrangement of the capillary circulation on the surface, that the prick of the finest needle wounds several of these vessels, and also causes pain, showing that the distribution of nerves is equally minute and complete and that nerve fibrils stand as sentinels to guard each minutest point. Each papilla has its numerous nerves, not one is destitute. Each muscular fibre has its accompanying nervous filament, acting simultaneously on each muscle cell. Cruvielhier says that nerves act on muscular fibre by contact, and not through a nervous atmosphere, as claimed by Dr. Reil. Thus, by reviewing all the tissues, we would find a sufficiently ample distribution of nerves to take their place and exert their influence in the phenomena of inflammation.

The microscopic appearances in inflammatory action are familiar to each member of our profession, but it may not be amiss to mention some of the leading characteristics, as a connecting link in the argument. The first effect of an irritant upon the smaller vessels of the part is comparatively slight, but important in its bearing. It may cause a slight contraction or expansion of the walls of the capillary vessels. At the same time the blood slackens or even retrogrades, as if it had received some shock through a medium between the irritant and itself. Very soon the vessels dilate, and the blood, as if recovered from its temporary shock renews its course with increased velocity. Shortly afterward the blood slackens in its course again, and this may continue till complete stagnation occurs. Here the phenomena may end and the blood resumed its course, and the vessels their normal calibre, or all the further results may follow in their usual course. Other changes in the constituent elements of the blood may recur during this time, but they are not of importance in the examination now before us. They all occur as sequences or as results of earlier changes. These changes, no doubt, follow the abnormal nervous influence which first produced the change in the blood vessels and the movements of their contents. We have seen that a distribution of nerves, uni-

versal in regard to the body, is proved by anatomy and physiology, and here, in inflammation, we have an influence primary, and continued so long as the irritant continues; we have local shock upon the blood in the capillaries, parallel to the universal shock in concussion, while all the subsequent changes are directed so as to accomplish the removal of the irritant to the nerves of the part.

It is proper next to notice the effect, at the periphery, of irritation at the center, or along the course of the nerve. In all instances this is followed by increased action in the capillary system, and when a gland is involved, by increased activity in its functions. By the division of the nerves distributed to any part, inflammation, with all its train of symptoms and results, follows in rapid and sure succession.

M. Claude Bernard says that by exciting the solar pexus and its efferent branches, both diarrhœa and dysentery occur, and all the habitual anatomical lesions are present; acute peritonitis has been induced, with all its consequences. Fever itself, that essentially medical symptom, can be excited by mere mechanical irritation of the nervous system. Pleuritis, with purulent deposit, may be induced in an animal previously enfeebled, by division of the great sympathetic nerve.

"It is therefore, a fact that the perverted state of the nervous system, gives rise to a great variety of diseases, not only of a general, but also of a local character; deprive a muscle or a bone of its nervous supply, and you will have as a consequence, fatty degeneration in the one case, and rickets in the other; in fact, if you tie the nerves which enter the nutritive foramina of a bone, you will very soon see the cells of the lamellar structure increase in size, the vessels become more numerous, and all the phenomena of rickets follow in rapid succession."—M. Claude Bernard's Lectures.

In experiments on the moter nerve of the parotid gland this same distinguished observer found that by galvanization of its peripheric extremity after it had been divided, an abundant secretion takes place from the gland, and the venous blood becomes a bright red, a phenomena always observed when the gland is in state of activity.

"Division of the fifth pair of nerves within the cranium, or of its ophthalmic branch, is followed by inflammation of the corresponding eye, which usually goes on to complete and permanent destruction of the eye. Immediately after the operation the pupil becomes contracted and the conjunctiva becomes insensible. The inflammation soon spreads to the iris which becomes covered with a layer of inflammatory exudation, the cornea increases in opacity and becomes ulcerated and the humors discharged. Sometimes the inflammation subsides and sight is restored."—Dalton's Physiology, p. 397.

Sufficient evidence is thus found to indicate clearly that irritation at the center, or along the course of the nerves will produce inflammation at the periphery. In this connection it must be observed that the primary change is in the nerve and that the vascular changes occur only as influenced by the change in the nervous system.

The *modus operandi* of remedial measures becomes an important question in this connection. It is the every-day experience of every practicing physician, that the effect of remedies becomes an important aid in the diagnosis of obscure disease. We may gather much of our knowledge of the character of any epidemic constitution of prevailing disease, by the effect of remedies. So the action of medicines becomes of equally important bearing in any inquiry concerning more general disease. Space forbids a full discussion of the action of remedial agents in inflammation. Bloodletting enters largely into the discussions of our standard authors in the treatment of inflammation, but it is so little practiced in every-day life that it scarcely deserves consideration save in works complete as treatises. Legitimately employed, it becomes an aid to nature's efforts to rid itself of the source of disease. By bloodletting its advocates propose so to change the quantity or quality of the blood as to render it more efficient in its office, or "restore the relation of the vessel and its contents." But in inflammation, waste and repair lose their equilibrium. The nervous influence has lost its power to sustain nutrition, and waste goes on, not only with wonted, but increased activity.

In this light he proceeds with caution who thrusts the lancet for general bloodletting. But the nervous system may be overwhelmed by the accumulated blood, changed in character and quantity. The nerves demand a relief from the burden to give them again an opportunity to resume their control over the vessels. Then bloodletting comes in as a rational adjuvant in the process of restoration.

So in the action of a cathartic on the abdominal viscera. The temporary relief of the conjested parts affords a rallying point for the nerves, and they again resume their office and influence in the multiplied functions of the parts. But these more general considerations must give place to a study of more specific remedies. Among these opium stands foremost. On the question of its action, Headland says: "The operations for which opium is most famed are actions on the powers which are universally attributed to the nervous system. The effects of opium occur immediately on absorption, a suddenness of action found in no medicine that acts on the blood. Opium produces no direct change in the blood, and has no chemical power of initiating such change. We may, therefore, reasonably conclude that opium acts on the nervous system immediately and bodily, without the intervention of the fluids otherwise than that they carry it to the part on which it tends to operate. Opium acts on the nervous system, and this is its primary and chief action. How it exerts its power over nerve, or how nerve medicines in general exert such power, I do not pretend to say. *I conceive that it is by a certain intimate or molecular relation existing between the particles of the agent and the particles of the nerve acted upon.*"

Within a few years past opium has received much attention from observers, and its rank in importance has been greatly advanced. It is now considered a powerful remedial agent, instead of a mere *placebo* to quiet pain, nervousness, &c., while the treatment proper was accomplishing its intended office. This view no longer holds with inquiring minds. Opium stands as the *sine qua non* in the treatment of large and important classes of disease. It has been demonstrated

beyond peradventure by Dr. A. Clark of New York that opium alone is sufficient, if timely administered, to control the severest cases of puerperal peritonitis. General peritonitis yields equally surely to its influence. Inflammation of the pleura, in its incipient stage, more especially, yields to the magic influence of opium. I believe that it only wants a clear head and brave heart, to show that it would have a like influence, if timely administered, in inflammations of the meninges of the brain. Every one knows its importance in the treatment of all inflammation or irritation of the mucous membrane. Accepting the explanation of Headland, on its manner of action, we have a clear exposition of the reason of its control over inflammation, as shown above, and we have an unanswerable argument pointing to the nervous system as sustaining the primary lesion.

But before we leave this division of the discussion, we must briefly notice the action of a few other remedies. The popularity of arnica in irregular practice is well known, and its valuable properties are becoming known to the profession, and where known it is extensively used. "We know little of the ultimate action of any medicine or external application, but the probability is that arnica produces anæsthesia of the cutaneous nerves, and exerts some influence on the ganglionic nerves which surround the blood-vessels and regulate their action, for it certainly arrests the formation of thrombus and ecchymosis."—*London Lancet*, Feb., 1860, p. 93.

Dr. J. R. Cushing, in the *Atlanta M. and S. Jour.*, says: "I believe aconite has a direct curative action through its influence on the nervous system, independent of its nauseating properties."

"Dr. Headland says: "It acts especially on the superficial sensory nerves, and tends to extinguish feeling and pain."

Quotations in this connection might be multiplied but the growing proportions of our article warns us to turn to other considerations. All along through our standard works we find intimations pointing towards the conclusions we have endeavored to arrive at. Such a thing may be, say they, but no therapentic measures are based thereon, and hence the

intimations are practically valueless. After stating that there is no warrant for assuming that the vital contraction of the capillaries produces the changes observed in inflammation.

Dr. Watson says; "The inquiry might be more properly directed, I think, toward the vital conditions of the *nerves* of the part."

Dr. Wood says, in writing on the theory of inflammation: "An irritant cause acts on a part of the body, either immediately from without, or through the blood, or by the instrumentality of the nerves. Morbidly increased action or irritation is excited in the part, embracing, probably, all its vital constituents as well as the ultimate molecular or cell structure, as the blood-vessels and nerves."

Overlooking a rather free generalization, which places Dr. Wood in a safe position, in the above quotation, we have an admission which carries us at least a part of the way in the position taken.

Dr. Todd, in his excellent and last work, in his Eleventh Lecture on Pneumonia, says: "The real nature of the organic changes which constitute this state of active conjestion, may be thus explained: Some matter introduced either through the bronchial tubes with the inspired air, or through the blood, irritates a certain portion of the lung; in other words, *disturbs its nervous influence and deranges its nutrition.* The immediate result of this nervous derangement is an increased action of the heart, a dilated and enfeebled state of the contractile walls of the finest capillaries, which offer no resistance to the flow of blood to that part, and allow it to accumulate there in greatly increased quantity. This relaxed state of the capillary wall increases the size of its pores, and allows a freer transudation of liquor sanguinis than takes place in health, and giving rise to those subsequent changes which produce the condition of red hepatization."—p. 237.

I have continued the above quotation farther than needful for my purpose, but the whole is worthy a place anywhere, and especially in the mind of every member of our profession.

M. Claude Bernard says: "It is to the nervous system

that we owe both sensibility and voluntary motion, that two-fold source of all our relations to the external world; it presides over all organic functions, and it is my intention to prove to you, that while it is the origin of all the normal phenomena of life, *it is also that of all pathological action.*"

M. Bernard is not a man that would intend to prove a very doubtful problem in physiology, and our position receives strong confirmation in the above quotation from his lectures.

Hastening to a conclusion, some practical inferences must be drawn from the positions taken and supported, perhaps, by arguments not altogether specious, and facts not wholly misplied. If we arrive at the conclusion that nervous irritation is at the foundation of all inflammatory action, it points toward an important indication in treatment, and sets a deffinite limit on the so-called anti-phlogistic measures. It is a maxim in medicine, that he is the safest and wisest practitioner who, knowing well the physiological functions and pathological changes, watches closest, and follows the natural curative process. A foreign substance in the body produces irritation. All the subsequent changes are solely for its removal. The lesson is, remove the cause of irritation, all the steps of inflammation are immediately arrested. Pneumonia, by nature's process, terminates by free sweating, increased flow of urine, and free expectoration. Nature points to her process as an indication whereby this "disturbed nervous influence" may be relieved. Peritonitis terminates by a gradual subsidence of pain and tenderness, cessation of vomiting, and diminished frequency of pulse; sometimes with sweating and free discharge from the bowels or kidneys. What will come so near fulfilling these indications as opium, and what has been proved so efficacious in practice? Here, we may suggest, the remedy acts on the nerves of the part "immediately and bodily," as indicated in the cessation of pain, indicating nervous irritation.

Now this abnormal nutrition, or nervous irritation, to which we give the name of inflammation, is a *depressed state of the vital powers* of the part, and, in extensive inflammation, of the whole system. It is a direct and legitimate effect of the

irritant on the nervous system. He who watches for a case of increased vital power or sthenic action in inflammation, will look long. He who practices bloodletting, administers cathartics and emetics, on the principle of sthenic action, will impose upon nature a double burden to bear, and his subsequent measures must be doubly diligent, or his patients will present, not "living witnesses," to his mind, if an observer, of his error. Bloodletting is a remedy so long as it is a recuperator. When it goes beyond unburdening the nervous system, and diminishes nature's material for repair, it becomes pernicious. As already intimated, there is an increase in the waste of tissue. Nutrition is deficient and abnormal, and instead of diminishing the supply the more rational course is to increase the materal. Every step throughout the entire process of inflammation is productive of debility. The increased heat is only a manifestation of rapid oxidization and waste. Pus and Lymph are produced from the blood and tissue, and involve exhaustion. The elimination or absorption of these deposits exhausts the power of the constitution. All these point unmistakably to the principle of treatment. Put no obstruction in the way of the natural process of recovery, nor exhaust nature's powers, but maintain the equilibrium, as far as possible, between waste and repair, and allay irritation by remedies addressed to and acting directly on the part.

ARTICLE 4.

DIPHTHERIA.

BY DR. A. K. VAN HORN.

Some account of the so-called disease, as it prevailed in the Northwest, and especially in Rock Run, during the summer and autumn of 1860.

Late in the Spring, a disease characterized by exudation

and ulceration of the fauces, made its appearance in the village of Rock Grove, ten miles distant, which was christened and treated by the Physicians, as diphtheria, or Euro pean fever.

It prevailed chiefly among children; but in some instances attacked persons above the age of puberty. The mortality was very high, and the disease ran its course in from two days to a fortnight.

Sporadic cases of a mild character occurred in our practice during the summer months, but not till some time in August did the disease assume a malignant form. A description of one or two of these cases will give a good idea of the pathology, as the symptoms of all are very similar, and afford a foundation for some deductions, going far to prove, either that many practitioners err in the diagnosis of the disease, or that diphtheria is identical with scarlatina.

Case 1.—John R——b, a lad about 11 years of age, of remarkably nervous temperament, was attacked about August 10th. He complained of languor, weariness, pain in the back and llmbs, intense headache, and nausea, followed by violent vomiting and purging. His skin was dry and hot, pulse frequent and feeble, was delirious at night. He complained of soreness of the fauces and stiffness of the jaws. On inspection, found the mucous membrane congested, and the fauces partially covered with a thin curdy exudation. The tongue presented a yellowish fur, through which the papillar projected. On the second day of the fever, a rash made its appearance, first on the breast, and rapidly spreading, till it covered the whole body. It was at first punctated, but soon became a universal blush. The fever continued, but rapidly assumed a typhous character. The pulse grew more and more frequent, dark sordes encrusted the teeth, but owing probably, to the inflammation of the fauces extending to the cerebral membranes, the delirium continued of a very violent character. The rash grew dark and livid, the throat became a mass of ulcers, the mouth had a black, mahogany hue, a fetid sanies flowed from the nostrils; dark, gumous blood oozed from fissures in the lips, gangrenous eschars formed on

exposed parts, the skin hung in shreds from his limbs, rapid and stertous breathing, with inability to swallow, finished the gloomy picture. Collape ensued, with cool skin, ghastly features, and death followed, in a week from the attack.

Case 2.—A few days after our first visit, a second child showed symptoms of illness. The usual premonitory features of fever were present, with the addition of vomiting and purging. On examination, the fauces appeared congested, with a trace of exudation, which rapidly grew thicker, as the disease advanced. Within three days a rash appeared, at first of a bright red color, but as typhous symptoms set in, changing to a livid hue. Instead of the marked delirium of the first case, there was stupor. Stertorous breathing, fetid flow from the nosirils, putrid ulcers in the throat, inability to swallow, and death in a week.

In the milder cases, the disease ran its course in the following manner, with, of course, slight variations: The usual preliminaries of fever, such as languor, rigors, pains in the back and limbs, followed by a frequent pulse, hot skin, etc., were invariably present. In addition, vomiting and purging usually occurred, accompanied with soreness of the throat, externally and internally, distinguishing it from cholera morbus, which, in some respects, it closely imitated. An examination of the fauces at this stage, showed congestion, and a slight layer of plastic lymph. Within three days a well-defined rash appeared, the exudation grew thicker, and the swab brought away masses of it in a decayed condition. True ulcers sometimes formed in the arches, discharging a fetid pus. The eyes grew red but not watery; cough sometimes harrassed the patient; the tongue was apt to lose its coating early in the disease, becoming pointed, smooth, deep red and glossy.

In four or five days from its first appearance, the rash began to fade, the false membrane was thrown off, and the soreness diminished; the fever declined and the appetite returned. Unpleasant sequealla were apt to follow. In one instance dropsy carried off the patient soon after apparent recovery.

An anomalous feature occurred in another. His throat had been deeply ulcerated; the veins undoubtedly laid bare, and possibly their coats corroded. A slight cough ruptured a blood-vessel, and in five minutes, not less than a quart of blood flowed from the sufferer's mouth. Luckily, the discharge ceased with syncope, leaving the little patient exhausted but apparently much relieved of a swelling situated below the right parotid gland. The bleeding, however, continued again and again, and the child now lies dropsical and anemic to the last degree.

The following plan of treatment was adopted, which has so far proved successful, except in two cases of extraordinary violence. Believing the disease to be constitutional, the effect of a specific poison of a typhous nature, and the exudation but a symptom, like the eruption, and having a certain course of inception, maturity and decline, regardless of medicine, except to modify or diminish the violence of the symptoms, the following indications seemed to be presented:

1st. To allay vomiting and purging by means calculated to diminish the intestinal irritation.

2d. To moderate the fever by diaphoretics, and thus favor the eruption.

3d. To support the vital powers, from the beginning.

4th. Local applications to counteract the exudation, and prevent the formation of gangrenous ulcers.

Calomel, from its soothing effect, would seem peculiarly fitted to fulfill, in part, the first indication; but from its specific effect on the mucous membrane, and ill results in a "malignant condition of the system," its use was discarded, and the following recipe given, with uniform success.

℞ Opii. grs. ¼,
Sub. nitrate bismuth, grs. 3.

Administered in 3 or 4 minims of tinc. camphorae.

To fulfill the second and third indications, the following ℞ was used:

Pulvus Dov., grs. 3,
Sul. quinine, gr. ¼.

Local applications, are of the highest value, and nitrate of

silver stands unrivalled, for its antophlogistic and alterative effect, when applied to the mucous membrane. In mild cases, in our hands, it has operated like a charm, and in the desperate, with deep ulcers and dark discoloration, it has ameliorated the symptoms and eased the suffering, though it might not protract life. It may be used in any proportion, from two grs. to the oz. of water, up to the solid stick.

A fifth indication might have been made, to produce an alterative effect on the system, and prevent the tendency to gangrenous ulceration. Chlorate of potash is recommended as modifying the state of the blood, changing it from a dark hue to a bright red. In the more violent forms of the disease, the blood is depraved, as the dark sordes and livid rash proves and whether this is a *cause* or *effect* of the poison, the chlorate may prove useful. Our experience with it is too limited to hazard an opinion.

As a wash to correct the fetor of the ulcers, the chlorate, in the proportion of two to four drachms to a pint of water, is an admirable application, and a small quantity of the same injected into the nostrils will often alleviate the filthy flow.

During the course of the disease the room should be well ventilated, and all discharges carefully removed. An occasional sponging of the patient with tepid water, will conduce much to his comfort.

From our experience of the disease, which extends to some thirty cases, of all grades of violence, from the slightest soreness of the fauces up to the most malignant form, we have arrived at the following conclusion; that most, if not all, the cases occurring in our region, diagnosed and treated by other physicians as diphtheria, or Europeon fever, have been one or the other of the three forms of scarlatina.

When the epidemic first reached us, we were carried away with *diphtheretism*, and pronounced the first cases as attacked with the new diseases; but a very short acquaintance made us *doubt*, and a *longer*, to recognise an old scourge, veiled in uncommonly malignant symptoms. Arguments to support our opinion will occupy a few lines:

1st. The symptoms of inception, maturity, and decline,

accord precisely with those seen in former years in scarlatina.

2d. Descriptions of scarlatina, by the best authors, accord with our cases in every particular.

3d. Persons are exempt from an attack who have previously had scarlatina.

4th. The same sequela follow in its train.

From these, and other arguments, perceptible yet scarcely tangible, we are forced to conclude that there may be a distinct disease called diphtheria; but that the affection we have described is scarlatina, though differently termed by physicians of respectability.

VITALITY OF TOADS.

Towards the year 1850, a workman in the neighborhood of Blois, (France,) struck a mass of silex with his pickaxe, and saw a live toad jump out of the stone. At that period doubts were entertained as to the supposed indefinite vitality of toads, which had been deduced from the above-mentioned fact; and M. Dumeril showed that toads, having cartilaginous ribs, could introduce the whole body where the head would enter. These animals are fond of slipping thus into very small apertures and crevices; and hence the error about their vitality when confined within stone. M. Milne Edwards' father, in order to bring the matter under direct experiment, buried some toads in plaster, and where, from the porosity of the plaster, or the existence of crevices, air could pentrate, the creatures lived several weeks, and even months; one, in fact, lived thus for *eighteen months*, this being the only authentic fact of the kinds. When, however, the plaster had neither porosity nor crevices, the animals were always found dead and dried up.

At a late meeting of the Academy of Sciences of Paris, the members present had an opportunity of breaking up masses of plaster, in which M. Seguin had imprisoned a viper and a toad in 1852. Both animals were found dead, and evidently dried up for a number of years.—*Lancet.*

Miscellaneous.

ARTIFICIAL PRODUCTION OF BONE BY TRANSPLANTATION OF THE PERIOSTIUM.

EXPERIMENTS BY M. OLLIERS.

The experiments were performed on rabbits of various ages. A marked difference was observed in the results, according to the hygienic condition of the animals. In healthy rabbits, operated on in the country, union most frequently commenced at once, and in four or five days the secretion of ossifiable blastema could be felt through the skin. In animals, on the contrary, kept in Paris, in cages or boxes, death frequently followed the operation. After operation, the animals were kept in a cage for two or three days; after which they were allowed more freedom. A good supply of food is necessary, otherwise the work of reparation is arrested. In proof of this, M. Ollier removed the radius and the second metatarsal bone of a rabbit, and placed the animal, for three weeks, in a small unhealthy place, with scanty food. Although the periosteum had been preserved, reparation had scarcely commenced at the end of the time. The operation was then repeated on the opposite side, and the rabbit was placed in an airy situation, and well supplied with food. At the end of six weeks, the bones removed by the second operation were found to be more completely restored than those which had been taken away at the first. The experiments of M. Ollier are divisible into three series:

1. Those in which a slip of periosteum was partially removed, but left more or less adherent to the bone. In these the slip was grafted among the muscles or under the skin, but still received some vessels from the bone.

2. Those in which the periousteum was separated from its final attachment to the bone from three to five days after the operation.

3. Those in which a portion of the periosteum was entirely removed at once, and transplanted to another part.

1. *Transplantation of a Flap of Periosteum, left adhering to the Bone by one end.*—The part operated on was the tibia. An incision having been made along the crest of the bone, the muscles were carefully turned aside so as to denude the periosteum. The part to be detached was then marked out by a scalpel, and was dissected up, leaving one end attached. It was there introduced into a channel made for it under the skin or among the muscles, and the free end was fastened by a suture, to prevent it from becoming twisted. In three or four days, in young healthy rabbits, the piece acquired a cartilaginous consistence, and sometimes became almost as thick as the tibia itself; but whether this was from infiltration from the surrounding tissues, or from the blastema intended for the formation of bone, it soon diminished, and gradually became more distinct and osseous. In almost all the experiments there was a small nuclus of bone developed in the end of the periosteum beyond the suture. If the flap of the periosteum escaped from the suture, it took the form of a spur, which projected more or less under the skin. In old rabbits the result was different; the wounds secreted a serous pus, and there was at the end of a month or six weeks, little or no trace of ossification. This shows that as age advances, the osteogenetic power is diminished, though not entirely abolished.

To meet the objection that periosteum merely conveyed the blastema from the bone, M. Ollier calls attention to the formation of an osseous nuclus beyond the point where the periosteum was strangled by the suture. He also, having detached a flap of periosteum, twisted it several times on itself, and fastened the end by suture as in the other experiments; the result was the formation, not of a perfect ring of bone, but of a circle formed of several separate movable osseous deposits, like a string of beads.

2. *Excision of the Pedicle of Communication three or four days after Operrtion.*—In these experiments, the ossific process continued; in one instance, the newly formed bone became reunited to the tibia, but, in another, where a large portion of the attached end was removed, the new bone was found to be joined to the tibia only by some fibrous deposit.

3. *Complete Removal of a Portion of Periosteum, and Transplantation into neighboriny or distant parts.*—M. Ollier dissected a piece of periosteum from the tibia of a rabbit

eleven months old, leaving it attached by a few filaments of the extensor muscle of the great toe. Six weeks afterwards, the piece had ossified, and was entirely independent of and movable on the tibia. In other experiments, he transplanted portions of periosteum from the tibia under the skin of the groin, the back, and the popliteal space; in these cases, also, bone was formed. The new bone was not equal in size to the removed portion of periosteum, from the shrinking which the latter had undergone.

The osteogenic property does not reside alike in the periosteum of all bones. M. Ollier dissected up a portion of the pericraneum of a rabbit three months old, leaving it attached at one end, and fastened it by suture under the skin, so that the deep surface was turned outwards. At the end of six weeks, there was but very slight trace of ossification, except along the edge of the slip, where it still adhered to the bone. This result is in conformity with the demonstration of Heine, that the pericraneum is not of itself sufficient for the reparation of bone.

At a meeting of the Societe de Biologie, in July, 1859, M. Ollier exhibited some specimens bearing on the question whether the dura mater performs the functions of a periosteal membrane. He transplanted portions of the dura mater of young rabbits under the skin in various parts of other animals of the same kind; at the end of five or six weeks, portions of bone were found to be formed. The osteogenetic property of the dura mater he found to diminish with the age of the animal; and this, he thinks, explains why bone is so often not reproduced after the operation of trephining. Bone was not formed from the parts of the dura mater not in direct contact with the skull—the falx cerebri, for instance; pathological ossification, however, takes place very frequently in this situation. Ossification was more abundant in portions taken from the base than from the concavity of the skull.

M. Berruti has performed some experiments which confirm those of M. Ollier. In dogs, he has raised flaps of periosteum, leaving them attached at one end, and has laid them with their inner surface in contact with a muscle; a plate has been formed, having all the histological characters of bone. In another instance he removed a flap of periosteum from the radius of a young dog, and fixed it to the muscle of one of the thighs of the same animal. The wound in the skin united without suppuration. On examination, after some time, the muscle was found to have a bony plate deposited on it. In another similar experiment the transformation into bone

was observed to be in progress. M. Berruti did not find any traces of cartilage in the tissue undergoing the osseous transformation.

External Characters and Structure of the Bone formed by Transplantation of Periosteum.—The heterotoptic bone presents all the characters of normal bone. [M. Ollier uses the term *heterotopique*, to denote development in abnormal or extraordinary situations. We ratain it in an English form, as being convenient and expressive.] Externally it is covered by periosteum; internally it contains medullary spaces, which unite in a tolerably large canal. At the periphery there is a layer of compact tissue. When the periosteum has been allowed to remain partly connected, the heterotopic bone contains a medullary canal perfectly distinct from that of the original bone. The canal is formed gradually, by thinning of the osseous tissue, the development of vacuoles or spaces, and the removal of the trabeculæ which separate them. Bones fromed from transplanted periosteum are generally smaller than the piece of membrane, probably because of the necessity for the formation of a new vascular oganization, and from the contraction of the piece of periosteum; but they also present a tendency to the formation of a medullary canal in their interior.

On examining thin slices of heterotopic bones under the microscope, they are found to contain osseous corpuscles, arranged in the compact substance in distinct layers round vascular or Haversian canals, not, however, so regularly as in normal bone; but the specimens examined by M. Ollier were it must be noticed, not more than eight or ten weeks old. The Haversarian canals are generally parallel to the axis of the bone. The medullary canal contains (*a*) free nuclei, and small cells with a distinct round nuclus; (*b*) patches of numerous nuclei, generally infiltrated with fatty granulations, and containing several nuclei analogous to the free nuclei; (*c*) fat; (*d*) fibro-plastic elements, and fibrils of connective tissues; (*e*) blood-vessels enter through one or more nutritive foramina.

The heterotopic bone frequently presents a longitudinal groove on the whole length of one of its surfaces. It is always observed on the side where the edges have been turned on themselves, towards the internal surface of the periostium, and indicates an inequality in the secretion of the blastema. The furrow is generally noticed, also, on bones reproduced after subperiosteal resection; it here corresponds to the incision in the membrane, through which the bone has been removed.

At their commencement, at least, the heterotopic bone is more or less adherent to the neighboring parts; the external surface of the periosteum is less distinct from the surrounding cellular tissue than the periosteum of normal bone. When developed round the leg, the bone adheres to the sheaths of the muscles, so as to impede the action of these organs. At first, the tendons also are more or less completely fixed to the bone; but gradually motion is allowed, by means of a loose cellular tissue, which would, perhaps, at last form a serous bursa.

Mode of Development of Heterotoptic Bones.—From the first there is an effusion of lymph, at first serous, afterwards more consistent, infiltrating the slip of periosteum and the adjacent tissues. The periosteum then becomes turgescent, and its capillaries are filled with blood; on its internal face there is produced an exudation, which at first sight resembles that furnished by the external surface and the neghboring tissues, but which is soon distinguishable by its greater density; it goes on increasing, while the other becomes absorbed. In four or five days, or thereabouts, there is an accumulation of transparent or slightly yellowish-gray firm matter under the periosteum, or rather in it (for the edges are glued together so as to form a complete sheath.) This blastema is chondroid rather than cartilaginous. At about the seventh or eighth day, the deposition of earthy matter commences. It is not necessarily preceded by true cartilage; but sometimes there is a hard, elastic substance, having the external characters of this tissue. Ossification commences at the center, and advances rapidly to the periphery; and, when the whole mass is permeated, the process goes on while the periosteum deposits new layers of blastema.

Although the deposit of earthy matter is general, the bone remains flexible for some time, and might be considered as still cartilaginous until laid bare and examined, when it is found to be friable and finely granular. It gradually acquires the appearance and consistence of normal bone. The process here described indicates that the production of heterotopic bone is not necessarily preceded by the formation of cartilage; and this might be expected, inasmuch as cartilage is not normally formed under the periosteum.

By scraping the internal face of the periosteum at the commencement, a layer of blastema is detached. On placing this under the microscope, it is found to consist of a large number of nuclei, and of cells analogous to those which are found in the embryonic tissues. The free nuclei, which form the pre-

dominant element, lie in the midst of a more or less granular amorphous substance. Here and there some fusiform cells are found, as well as very fine fibres—the latter being more apparent if some force has been used in scraping the periosteum. There are also cells, some with one nucleus, others larger, with several nuclei. These large cells are often very regular in outline. The younger the animal, the more abundant is the blastema. In this blastema the process of ossification goes on, in the same manner as has been described, with regard to the formation of normal bone beneath the periosteum, by Virchow, Sharpey, Kolliker, Robin, and Rouget.

When cartilage is met with, it is rare to find cavities containing many cells; and there is nowhere the regular arrangement observed in ossific cartilage.

Do the heterotopic bones continue to increase in size? M. Ollier observes that, to answer this question, a period of several years would be required; but, in the meantime, reasoning from analogy, it is fair to infer that they would at least increase in thickness, like normal bones, since the periosteum exists in both cases.

Nature of process which takes place on the Internal Surface of Periosteum—Immediate Origin of the New Bone.—If, after detaching a portion of the periosteum, one half of it is gently scraped on the internal surface, the osseous tissue will be formed from the part only which has not been so treated. M. Ollier dissected up a flap of periosteum, leaving it attached at one end, and scraped the part nearest its attachment to the bone. At the end of ten days this portion was merely fibrous, although traversed by numerous vessels; the part which had not been scraped presented a partly ossified deposit. Hence he concludes that neither vessels nor the external part of the periosteum are sufficient for the production of bone. The production of bone may also be prevented by touching the internal surface of the periosteum with a caustic.

In order to determine more closely the action of the subperiosteal blastema, M. Ollier proceeded to transplant it alone to distant parts. Having gently scraped some from a flap of periosteum, he insterted it under the skin of the axilla of one animal. In a week there were found small masses of a yellowish substance, having the external appearance of fat, but which, under the microscope, were found to contain certain nuclei of sub-periosteal blastema, mixed with fragments of a granular fibroid substance, in which the presence of carbonate of lime was detected by hydrochloric acid. These masses,

when treated with acid, presented elongated nuclei with more or less irregular outline.

M. Ollier makes some comments on the doctrines advanced a century ago by Duhamel, with reference to the function of the periosteum in the formation of bone. At first Duhamel regarded the bone as increased by the ossification of layers of the periosteum; but he subsequently modified this view; and in 1757 he thus expressed the analogy between the formation of wood and that of bone. "Wood increases by the addition of fine layers deposited between the wood and the bark. Bones increase in size by the formation of layers between the periosteum and the bone." He could not, M. Ollier observes, be more explicit at a period when the knowledge of the production of tissues was very imperfect.

Transplantation of Periostsum after Death.—In his experiments, M. Ollier took care to operate rapidly, lest the properties of the periosteum should be destroyed by the least amount of cooling and dessication. He finds, however, that, though rapidity in operation is most important to the production of regular and abundant ossification, the osteogenetic property is not at once lost. In January, 1859, he transplanted a piece of periosteum, which had lain on his table seven or eight minutes, and had been washed with cold water; it became adherent, and granules of bone were formed in it. In other cases he has succeeded with pieces which had been removed from fifteen to twenty minutes; and, in periosteum removed from animals even as late as an hour and a half after death, the osteogenetic property was not entirely lost. He believes, moreover, that this limit may be carried still further under favorable conditions of temperature, etc., and according to the mode of death.

Transplantation of the Pierosteum of an Animal to another of a Different Species.—In the experiments already referred to, the periosteum was transplanted to animals of the same species; but M. Ollier has further tried the effects of introducing portions of periosteum under the skin of animals of different species from those from which the membrane was taken. He has thus experimented on the dog, cat, rabbit, guinea-pig, calf, goat, sheep, and hen, with the following general results:

1. The flap transplanted is entirely absorbed in a longer or shorter time. At first the wound heals; and for a short time a small hard nucleus is felt, which, however, gradually diminishes and disappears, so that no trace can be found on *post mortem* examination.

2. The flap sloughs, and is thrown off by suppuration; this result was most frequently observed in rabbits on which periosteum from the dog had been engrafted.

3. The flap becomes encysted, without suppuration. At first the experiment appears to have succeeded; the flap is retained in its place by plastic lymph; but this lymph soon becomes organized into a cyst, and the periosteum undergoes fatty change. Sometimes the cyst contains thickened pus. This latter result was observed chiefly in rabbits; the former in experiments with the combs of cocks.

4. The periosteum becomes adherent to the neighboring tissues; vessels are formed in it, and it continues to live, as a fibrous membrane; but no bone is produced. This was observed several times in cases where periosteum was transplanted from the dog to the rabbit, and from the rabbit to the hen.

5. The periosteum not only forms a fibro-vascular adhesion to the neighboring tissues, but produces osseous tissue. This result, however, is very rare, even in animals of closely allied species.

Modifications which Bone Undergoes when Denuded—Regeneration of the Periosteum.—It has long been known that a bone deprived of periosteum is not of necessity condemned to necrosis. Tenon proved this by experiment; and Macdonald, 1799, showed that periosteum was reproduced after being destroyed. At a later period this opinion has been supported by Cruveilher and Flourens. In none of his experiments has M. Ollier observed a sequestrum at the part where the bone has been denuded. Immediate union takes place, or the wound suppurates.

In the first case the following phenomena are observed: In a short time after the bone is denuded it becomes covered by thin, soft, transparent layer, which soon becomes distinct from the effused plastic lymph. Towards the eighth day it resembles a coat of varnish spread over the bone. It unites with the edges of the old periosteum. At first it is without vessels, but three or four days later, these appear at the edges, being furnished by the periosteum; and in the center, where they are supplied by the bone. The old periosteum is puffed up and thickened all around; and small tufts of vessels are seen advancing from the circumference to the center of the denuded portion, so as to cover the varnish-like layer of blastema. In the meantime cellular and fibrous elements are developed, and form a fibrous membrane analogous to periosteum.

To ascertain whether the new membrane thus formed is really periosteum, M. Ollier, in two instances, removed and

transplanted it; but the experiment failed, probably from being at too early a stage, (three weeks.) He subsequently performed other experiments, taking care to allow six or seven weeks for the formation of the new periosteum. In an instance related in the *Journal de la Physiologie* for July, 1859, he removed the newly-formed periosteum forty-three days after the first operation; it was thicker than the normal membrane, and was easily isolated. He then inserted it among the muscles of the leg; and, at the end of twelve days, bone was found to be formed. Periosteum was again commencing to be formed in the bone which had been thus twice denuded.

M. Ollier differs from the opinion of Flourens, that the periosteum may be removed and reproduced indefinitely. He allows that periosteum may be removed and reproduced again and again; but this, he says, can occur only when the bone which it covered has not also been taken away.

Bone, when denuded, becomes slightly roughened while the new periosteum is being formed; it loses its whiteness, and becomes reddish, and presents punctiform vascularity on its surface. When, however, the new periosteum is formed, the bone continues to grow regularly; and in rabbits, at the end of two months it has regained its normal appearance.

When the wound is the seat of prolonged suppuration, the bone remains denuded for several days; then fleshy granulations appear on its surface, and the superficial layer is gradually absorbed. When cicatrization is perfect, the surface of the bone is unequal; round the denuded part, at the limits of the old periosteum, are projections, sometimes large; while more or less deep depressions are seen in the part which has been the seat of exfoliation. These inequalities tend to disappear gradually. While this work is going on, the bone is covered with a fibrous layer; but this new membrane is always more or less confounded with the cicatrix outside it, so that it is not certain whether it is a true periosteum.—*British Medical Journal.*

A New Adulteration of Milk.—The *Lancet* says that a London milk dealer has been detected in coloring milk with yellow ochre. The object was to avoid the blue appearance produced by the dilution to which it was subjected, and to give a rich, creamy appearance.

EXPERIMENTAL PATHOLOGY.

BY M. CLAUDE BERNARD.

In examining the various tissues which enter into the composition of the living frame, it is easily ascertained that peculiar and distinct properties are separately enjoyed by each of them; and that, in this manner, they are enabled to fulfill the various functions which devolve upon them. At the same time we discover that certain general systems exist, which, by their distribution are brought into constant communication with all the various elementary tissues of the body; you have already named the vascular and nervous systems. The blood, as you are well aware, is brought through the capillaries to every part of the body, and its presence being indispensable to the physiological existence of all living tissues, they rapidly perish when accidentally deprived of this all important and vivifying fluid. The blood, therefore, must be looked upon as the medium in which all our tissues have their being; it brings them in contact with an immense number of substances, derived from various sources, some of them drawn from the atmosphere through the process of respiration, others again introduced into the economy through various absorbant surfaces, and all of them equally necessary to the continuance of the physiological conditions of life.

Such, however, are not the only bodies which the circulating fluid brings into contact with the primitive elements of which our organs are composed; the blood is, at the same time, the vehicle through which medicinal agents, intended to modify their properties, are conveyed into living tissues, and penetrate into their substance. We must, in consequence, consider medicines as physiological agents of an unusual nature; introduced into the same channel as the bodies with which it is natually supplied, they reveal their presence exactly in the same manner, viz: by giving birth to a series of phenomena peculiar to each substance, and widely different from those which exist in the physiological state. But another question now presents itself; *how* are these foreign substances enabled to act upon our tissues? Not through their physico-chemical properties, as has been sufficiently proved in our last lecture; a *physiological* property must, therefore, be had recourse to, as in the case of all the powers which support life. When oxygen, for instance, is brought into contact with elementary, nervous, or muscular fibres, it quickens their activity, and keeps alive all their properties

within them; and, when deprived of so powerful a stimulus, both nervous and muscular fibres quickly die. Similar actions are, no doubt, in their intimate essence, of a physical or chemical nature; but in the present state of our knowledge, the observer can only point to a physiological agency.

Histological elements, as we have already shown, are, in every case, endowed with special properties; and the wider is the difference which separates one tissue from another, the higher is the animal's rank in the scale; in the nobler species peculiar organs are adapted to each individual function; and in no other animal is their number so great as in man. We are, therefore, justified in supposing that the primitive muscular fibre, for instance, is widely different in every respect, from the nervous filament and the glandular cell; and, in consequnce, that agents entirely powerless as regards all other tissues, may be found to exercise over the muscles an almost unbounded influence.

Among the innumerable agents which possess the power of destroying life, there exist an immense number which the medical philosopher cannot, by any means, consider as diseases; no one, for instance, would think for a moment of giving that name to the bullet which slays the soldier in the battle, or the thunderbolt which strikes the plowman dead in the field; the same, of course, might be said of all the causes of violent death; now, reasoning by analogy, might we not place a large number of so-called diseases in the same class? A tumor which, by its situation, compresses the windpipe, and gradually increasing in size, superinduces suffocation at last; a stricture of the œsophagus, which prevents the passage of food into the stomach, and ultimately starves the patient to death; are not these mechanical obstructions, which, acting as impediments to some of the more important functions of life, gradually bring on death, by a slow, but inevitable process? It would, of course, be superfluous to adduce other instances to the same purpose, but we are supported by the authority of Professors Trosseau and Pidoux, in assimilating to such cases those valvular affections of the heart, which by constantly opposing the natural course of the blood, sooner or later produce a complete stasis of the circulation.

The word disease, must, therefore, be understood to signify disorders of a more extensive nature, the existence of which is revealed by phenomena of an entirely general character. Such, however, are frequently the results of local affections; the fact is established by daily experience; and we need only allude to the well-known effects of wounds and sores, in order

to convince you that local causes frequently become the starting point of general diseases. The results of our physiological experiments are, in this respect, perfectly in accordance with clinical observation; let, for instance, a poison be introduced under an animal's skin; its action, during the first few moments is entirely confined to a single point, but within a given space of time, its effects are felt throughout the living frame; in what manner can similar facts be best explained? Such is the problem, the solution of which we are about to seek; the difficulty, as you perceive, has been distinctly stated.

That poisonous substances cannot act upon the tissues which compose the body, without having previously been absorbed, is perfectly clear; but when, under their influence, general phenomena are produced, the vessels or nerves must evidently have been called into play; the vascular and nervous systems alone, as you are well aware, are distributed throughout the body in one unbroken chain; and physiology, in this case, abundantly confirms the inferences drawn from our knowledge of anatomy. The well-known experiments of Magendie have shown that injecting into the arteries of a limb any given toxic substance, its ordinary effects may be indefinitely suspended, by tying the veins which connect the diseased part with the remainder of the economy. The animal's life might, in this manner, be almost indefinitely prolonged; but as soon as the vessels are untied, the poison flows into the torrent of circulation, and gives rise, as usual, to a series of phenomena which end in death. The fact is well known to the inhabitants of tropical countries, who, when bitten by venomous serpents, immediately apply a close ligature over the limb, in order to prevent the passage of the venom into the blood, until proper remedies have been applied.

But the vessels which convey into the depth of our tissues both poisonous substances and the ordinary elements of nutrition, belong, as you are perfectly aware, to the arterial system; on the other hand, all foreign bodies which pass into the blood through the process of absorption, are conveyed into the arterial circulation by the veins; we thus thus discover that when general symptoms have been produced in this manner, the two great divisions of the vascular system have both been called into play. It sometimes occurs, however, that the noxious principle which circulates in the veins is eliminated during its passage; such, for instance, is the case with sulphuretted hydrogen, one of the most dangerous substances we are acquainted with; when injected into the veins,

it escapes from the lungs, and is, in this manner, prevented from passing into the arterial current; and the animal, in consequence, does not experience the slightest injury from the operation, the poison having been expelled before it could reach the tissues, which its contact would have disorganized. The venous, or absorbent system, is, therefore, that part of the vascular network which contributes to the production of general phenomena, when deleterious agents are introduced into the economy; nor do the arteries begin to play their part before the veins have accomplished theirs. But, as we have just stated, the poison is sometimes expelled before reaching the left side of the heart; and this elimination takes place on various points; but the pulmonary apparatus is the ordinary seat of the process. For this very reason the inner coat of the lungs is, perhaps, the most powerful of all absorbent surfaces; and poisons, when directly brought to bear upon it, produce a more instaneous effect than when deposited upon any other point; introduced, as it were, into the very centre of the arterial system, they pass at once into the circulation without any possibility of being expelled. Thus, sulphuretted hydrogen when introduced into the lungs, extinguishes life within a few seconds; while the same gas exists, to a considerable amount, in various parts of the intestinal tube, and even circulates in the veins, without producing the slightest inconvenience. It must, of course, be understood that the presence of poisons within the animal economy is perfectly inocuous as long as they are not collected together in sufficiently large quantities at a given moment. Small doses of the most dangerous substances may be successively poured into the vessels, at distant intervals, with perfect impunity. In estimating the noxious power of toxic bodies, the amount actually contained within the blood must alone be taken into consideration.—*Medical Times and Gazette.*

A NEW METHOD OF DISSECTION.

A great desideratum in anatomy is, to obtain an exact idea of the real position of the internal organs. This, however, is far from being the case in dissections by the common method; since every section made on the body, rendered flabby and unelastic by death, produces a corresponding deformation; the

soft part contract, and nothing but an approximative idea can be formed of the relative position of the exposed parts before the operation. In order to obviate this inconvenience, Dr. Pirogoff, of Russia, has had the ingenious idea of subjecting the body, before dissection, to a cold of eight degrees centrigrade, (16 Fahr.,) for the space of three days. By this means the body acquires a hardness like that of wood, its organs retaining, at the same time, their relative sizes, since the moisture they contain increases by congealation, and thus counteracts the contraction which the solids would otherwise undergo.

The body in this state is subjected to the circular saw, which will cut off slices of the thickness of a frank piece with the greatest nicety, either longitudinally, transversely, or along the axis of the member. By this means Dr. Pirogoff has been enabled to publish an anatomical atlas of every part of the human body, seen under three different aspects. In order to copy out a section obtained in the manner described, Dr. Pirogoff passes lightly over the frozen surface with a warm sponge; the surface is thus thawed for an instant, but a transparent film of ice is immediately afterwards formed over it. A pane of glass with lines drawn upon it crossing each other at right angles, so as to form so many squares, is then laid on the icy film, and the surface copied out upon paper also divided into squares like the glass.

By this means the greatest precision is attained. The principle of refrigeration has been carried still further by the ingenious inventor, who by exposing a body to a cold of 18 degrees centigrade, (4 Fahr.,) reduces it to the consistency of stone, and then operates upon it like a sculptor, with a chisel and mallet, laying all the viscera open without in the least degree injuring them. It is thus he has been enabled to ascertain that the cavities of the mouth, nose, the typanum of the ear, and those of the respiratory organs, are the only ones which enclose air, and that everywhere else the surface of all parts of the body adhere immediately to the membranes enveloping the organs they contain; so that however apparently dissimiliar their surface of contact may be, there is still no empty space between them.

☞ The friends of the late Dr. Isaacs will be gratified to learn that a bust of this lamented physician is in preparation by Mr. Thomas Cooper, of this city. The mould was taken after death, which gives a somewhat cadaveric appearance to the features, but otherwise they are strikingly accurate.

INTRODUCTION OF THE TEA PLANT INTO THE UNITED STATES.

A few years ago the United States Government was led to take measures for the introduction of the tea plant into the confederation, with a view to establishing, if possible, the preparation of tea in some of the States. The success that had attended Mr. Fortune's operation for the East India Company, having induced them to consult that gentleman, it was finally arranged that he should again proceed to the Celestial Empire, for the purpose of obtaining as abundant a supply of plants for the west as he had secured for the east. His mission has been attended with the most complete success. A minute of the United States Patent Office now before us, states that he was dispatched in March, 1858, that he had obtained seeds enough to plant one hundred acres, a large portion of which had arrived by the 20th of June, 1859, and were flourishing in a propagating house, especially constructed at Washington for their reception. Applications for plants were even then made in such numbers that it had become necessary to refer to Congress for instructions as to their disposal.

Mr. Fortune returned to England some time ago, and has favored us with the following interesting report upon the final result of the expedition:

"It will be seen by the accompanying papers that the results of my expedition to China, for the Government of the United States, have been very satisfactory. In little more than one year about fifty thousand tea plants, and many other vegetable productions useful in the arts, or of an ornamental character,* have been introduced to America from the tea countries of China.

"This success was mainly owing to experience acquired during former visits to these countries. Arriving in China in the month of May, I spent the first few months in visiting numerous tea farms in different parts of the country, where I made arrangements with the natives for large supplies of seeds as soon as they ripened in the autumn. In October and November I repeated my visit to the same districts, and everywhere found supplies of seeds awaiting me. In former

*For example: the Camphor and Tallow trees, Chusan Palm, green dye plant, (Rhamnus,) manure plants, (Trifolium and Coronilla,) Wax-insect tree, (Fraxinus Chinensis,) Yang-mae, (Myrica sp.,) southern fruits, such as the Leechee, Longan, Wampee, &c., &c.

transactions with these tea growers, I had always treated them kindly and liberally, and I now found the advantage that resulted from such treatment. Seeds had been saved for me in all directions; I had only to pick them up and proceed onwards, and was thus enabled to get through a large amount of work in a short space of time. In December I reached the seaport of Shanghae, with the whole of my collections in excellent condition.

"Tea seeds will not retain their vitality long if kept out of the soil. In order to guard against all risk, a large number of Ward's cases had been previously prepared and filled with earth, and to these the seeds were immediately transferred. The first shipment was made in December, a few days after my arrival in Shanghae. Knowing that the vessels would probably arrive in America in the middle or end of March, I thought it likely the seeds would remain in the earth without vegetating during the voyage. Instead, therefore, of sowing the seeds near the surface in the usual manner, I mixed up large quantities with soil, and filled the case up with the mixture of earth and seeds. By this simple plan many thousands of seeds were carried to their destination, and when they arrived they were as sound as if they had been all winter on a Chinese seed-bed. Of course it was necessary to unpack them immediately on arrival, and sow them thinly in other quarters. In the other cases, which were shipped later, this mode of packing would not have been safe. The seeds were therefore sown thickly and covered with earth in the usual manner, and in this state might vegetate on the voyage without any risk whatever. In the one case the object was to get the seeds quickly to their destination without vegetating, for had this taken place, the experiment would have been a failure; in the other they were placed in circumstances favorable for vegetation, and the only change likely to occur would be this, that in China they were only seeds, while towards the end of the voyage or at its termination, they would have changed into healthy young plants.

"The watering, closing the cases, shipping, and last, but not least, securing the good-will of the captain and officers, were all important operations."

Not only has the tea plant been thus introduced to the Eastern States, but it has found its way also to the Western; and our friends on both the Atlantic and Pacific sides are, with their usual energy, setting about growing it.

But there still remains the question whether they can turn it to profitable account. That the climate will be found to

suit in some of the vast regions of the West, there can be no reasonable doubt. But merely growing tea plants will not make commercial tea. The difficulty lies in the preparation of it, an operation which, as conducted in China, demands an enormous quantity of labor, the article of which, beyond all others, the United States has the least to spare. But is it really necessary to prepare tea Chinese fashion? to chop it up into little balls and twist it into all sorts of queer shapes with all sorts of names, in order to give it its dietetical value? Surely not. We have ourselves found out that the painted article called green tea is not very wholesome, and by no means the better for the paint; and we quite anticipate that our United States friends will have even already projected some sort of machine that will produce good marketable tea without the assistance of human hands. This, indeed, we know, is the opinion of Mr. Fortune himself.—*London Phar. Jour., from Gardeners Chronicle.*

☞ A death by chloroform is this week reported in our columns from Bellevue Hospital. The anæsthetic was administered by a junior member of the house staff, with as much care as is usual in hospital practice, and commendable exertions were made to resuscitate the patient. The post mortem examination revealed fatty degeneration of the heart, an apoplectic condition of both lungs, and slight evidences of former inflammation of the meninges of the brain. This is the second case of death by chloroform which has occurred in that hospital within a twelvemonth. Considering the daily use of anæsthetics in this large hospital, and the immense aggregate of cases of its employment in a year, and above all the careless manner in which it is often administered, this exemption from fatal consequences is truly remarkable. We learn that this case has raised the question in the Medical Board of the propriety of using chloroform in the practice of that hospital. We believe that this agent was long since excluded from the New York, Pennsylvania, and Massachusetts General Hospitals.—*American Medical Journal.*

Editorial.

BOOK AND PAMPHLET NOTICES.

MEMORANDA MEDICA, or NOTE BOOK OF MEDICAL PRINCIPLES, &c. By HENRY HARTSHORNE, M. D., &c. J. B. Lippincott, & Co., Philadelphia: 1860.

We hail the appearance of this little volume with peculiar pleasure. It is one of the few books which approach the Baconian standard, setting forth clearly and yet with aphoristic brevity, that which is believed to be the *really known* and worthy of trust, without unnecessary comment or rhetorical display.

Years ago we uttered our earnest protest against the ponderous treatises which were, from time to time, being inflicted upon the professional public, without warrant or excuse, save the overweening pride of authorship, and weak ambition to figure upon the title page of a massive work. We begin again to believe that the earth *does* move after all. The work before us evidences a clear head, sound scholarship and large exercise of thought; nevertheless it is scarcely more bulky than the Westminster Catechism or Salem Platform. *O si sic omnia!* Herein is truth reduced to elemental propositions, readily capable of being understood, of being attacked or of being defended, without bush fighting or guerilla warfare.

The general arrangement includes, in order: Etiology, Semeiology, General Pathology, Nosology, and General Therapeutics; and to the whole is superadded what will prove of great convenience to students, a glossary. Among the special points in this treatise, we beg leave to call attention to the following. It will be recollected that Prof. Bennett asserts that inflammation is "a self-limited process which cannot be

cut short or interfered with to advantage." To which Dr. Hartshorne curtly replies:

"If there be anything positive in medical experience, I believe the contrary to have been established."

Again, Dr. H. observes:

"I do not know of a single case of any kind of disease, in which the indication or object of medical treatment is to reduce the strength, or lower the vital power of the patient's system."

All of which we steadfastly believe. Again:

"It must be remembered that, at the present time, no one thinks of bleeding *for fever, as such.*"

"Starving patients is not now thought of, unless they are fearfully plethoric. In the later stages of inflammatory disorders; in fact, *as soon as the exudation has all been thrown out*, generous diet is usually required. Some patients will never bear a purely vegetable diet under any circumstances; and *some* cases, even of inflammation, require stimulation from the first."

Another:

"Experience fully warrants the inference that mercury is a general stimulant to all those functions of organic life which are performed under innervation from the ganglia of the (so called) sympathetic system. It is probable that its action is directly *upon* those ganglia. Thus mercury tends to diffuse or equalize secretion, and the circulation of the blood, aiding, in this way, to break up local congestions and inflammations."

"The most powerful of anti-phlogistic (arterial sedative) medicine is tartar emetic."

Once more:

"Opium, always the most reliable and potent of anodyne medicines, has, in latter times, assumed a more important position as a *remedy* in the treatment of inflammatory diseases."

Which, also, notwithstanding Prof. Paine, of goodly blood-letting memory, we fervently hold to be true.

The "Concluding Maxims" of this invaluable little work, we cannot resist the temptation of reproducing in full:

"1. All pathology is but the physiology of organic perturbations.

"2. Never interfere actively in disease without a distinct object.

3. "Act only upon scientific reasons, or well defined experience.

"4. Treat the cause of disease, whenever it is possible.

"5. Watch always, and treat when requisite, the condition of the patient.

"6. Avoid, especially, routine treatment according to the *names* of diseases.

"7. Use no violence with self-limited diseases."

"I believe that a sound 'theory of medicine' may be expressed in a single paragraph, thus:

"Physiological opimism is the aggregate tendency of all the forces of the living organism, under the controlling influence of the vital force. But the best possible result in a given case may, from its conditions and circumstances, fall far short of health. Medicine, then, is to favor and supply those conditions which, under natural laws, allow or promote the best result.

"In aiming to fulfill this duty, the art of healing must always depend, in part, upon empirical observation, (which every branch of knowledge requires,) and, in part, upon inductive science. But in both alike, the physician is, or should be, *naturæ minister et interpres.*" A.

THE PRINCIPLES AND PRACTICE OF SURGERY; by ROBERT DRUITT, Licentiate of the Royal College of Surgeons, etc. From the Eighth Enlarged and Improved London Edition. Philadelphia: Lea and Blanchard, pp. 695, 1860. From Wm. B. Keene, Chicago.

On the appearance of the first American edition of Mr. Druitt's work, we expressed the opinion that it was an improvement on all the text books then in use. Since that

time the works of Ereichsen, Fergusson, Skey, South's edition of Chelius, and others, have been so widely circulated that at the present time that opinion would require to be modified. Still, with the revision of this edition by the author, it may be said to present as fairly as could well be done in a limited space, an outline of surgical science in its present state, and will prove, as heretofore, a useful work in the hands of students and junior practitioners. Its success in England, as indicated by the number of editions it has gone through, is remarkable.

This edition has the notes of two American editors, Messrs. Flint and Sargent, so mixed up with the original, that it difficult to distinguish, without much care, what really belongs to the author himself. It is probable that the work would be quite as acceptable to the profession of this country, without the addition of the peculiar views of these gentlemen.

On the Theory and Practice of Midwifery. By Fleetwood Churchill, M. D., M. R. I. A.; with Additions by D. Francis Condel, M. D. A new American, from the Fourth Corrected and Enlarged English Edition. For sale by W. B. Keen, 141 Lake street.

We recognize in this book, the countenance of an old and familiar friend, in new attire, amplified and rendered more perfect by the addition of many valuable plates, by way of illustration. The rapidity with which the successive editions of this work have been exhausted, indicates the estimation in which it is held by the profession, and is a clear proof that its excellencies are fully appreciated. It is a very complete compendium of whatever has been demonstrated to be valuable in the art and science of midwifery, down to the present day. Two entirely new chapters have been appended to this edition; one treating on "Obstetric Morality," and the other on the "Qualifications and Duties of Monthly Nurses," the latter being full of instruction to the nurse, and its perusal

cannot but be suggestive of useful ideas to the physician. There is no better text-book for students; or work of reference and study for the practicing physician than this. It should adorn and enrich every medical library.

A Treatise on Fever; its Causes, Phenomena, Treatment, &c., &c. By Rezin Thompson, M. D., Nashville, Tenn., 1860.

This is a new and considerably improved edition of a work which has attracted attention, particularly in our Southern and Southwestern States. Some fifty pages of new matter have been added to the first edition. However we might feel disposed to take exceptions to either the matter or manner of this little book, we are dissuaded from comment, to which we should otherwise be tempted, by the evidences of sincere and earnest belief, on the part of the author, that what he asserts is incontrovertibly true, and of the highest importance to be known. Such a conviction ever ought to be met, unless it results in the most patent absurdity, by generous salutation and impartial examination.

Dr. Thompson is convinced that his doctrines and treatment of fever are not surpassed in importance by any discoveries which have been made in the science of medicine. He estimates that the adoption of "A plan which would stop this outlet to human existence (febrile diseases) would save in one year, in these United States alone, at least half a million lives; a number greater than that which composed the entire belligerent forces in the Crimea. But a plan which would save half of this amount would in all fairness entitle the discoverer to be classed among the prominent benefactors of mankind. And yet this—yes, more than this—I profess to have discovered and propose to explain."

Some months ago we ventured to question the absolute certainty and reliability of sundry propositions on the fever question, by another prominent professional gentleman in Nash-

ville, Tennessee, and although our observations were couched in the most friendly and good-natured terms, we confess that our ears have not yet recovered from the thwacking and hammering and multitudinous noises which were inflicted upon them by the indignant professor.

Our acute sensibilities will not permit us to venture the faintest shadow of a jest upon the idea that this author resides in the same city with our indignant friend above alluded to, but give a paragraph from the book before us, which explains why the coincidence is not remarkable:

"I am aware that we are all slow to acknowledge anything to be great which is the work of a cotemporary, and especially of a fellow-citizen and an equal; it requires the charm of distance, of time or space, to throw around any great discovery that prestige which commends it to our acceptance. But, of all ages of the world, this is the time; and of all places, this is the locality, in which we might most reasonably look for something great to originate; for I shall not deal much in the imaginary when I say that this is the most enlightened age of the world's history, and these United States contain more intelligence than any other country which the sun looks upon; and Tennessee is the centre State of this great Republic, and Nashville is the *sensorium commune* of Tennessee.

Dr. T. founds his system of practice upon conclusions derived from observing the peculiarities of the capillary circulations, as influenced by poisons and the nervous system. The great moving cause of the sanguineous circuit, he believes to reside in the capillaries, adopting, in the main, the views of Prof. Draper. To this, however, he superadds a *vis a fronte* which causes the return of the blood from the veins to the heart, by a *quasi* suction power, not exerted, perhaps, so much through active dilatation of the auricles as of the ventricles, and this again provoked by the capillary force of the pulmonary circulation. Mrs. Willard is complimented in this connection, which certainly is chivalrous—worthy of a Tennessean.

Disease, he concludes, "consists in debility in one or more organs, and that there can be no disease without debility, and this debility must be, of necessity, partial. A general feebleness does no more constitute disease than general power." He proceeds to illustrate by reference to the febrile results of traumatic

lesion, exposure to cold, puerperal fever, and various other diseases, the effects of medicine, etc. Summing up what he thinks proved to be the essential circumstances connected with and constituting a case of fever, viz:

1st. Morbid impressions made upon the nervous centres.

2d. Weakened and vicious nervous influence sent out through the whole system.

3d. That this weakens the action of the capillaries, and causes them to dilate under the pressure of the blood, while at the same time, the sensibility of their mouths is so altered by having been supplied with morbid nervous influence, that they refuse to let the blood pass; just as the neck of the bladder, when irritated, refuses to give passage to the urine, though of a natural quality, thereby retarding the blood in the capillaries, and obstructing the circulation.

4th. That the accumulation of blood in the large vessels, from this cause, occasions the heart and arteries to be unduly excited by the stimulus of distension, thus producing the reaction which constitutes the hot stage.

5th. The pressure and tension occasioned by the engorgement of the capillaries, give rise to all the unnatural phenomena which attend a case of fever throughout its several stages, viz.: the increased, depraved, or suspended secretions, painful and unnatural sensations, inflammatory complications, etc.

6th. It is only by a partial restoration of the natural action of the capillaries that an intermission, or remission, is obtained; and only by permanently restoring this action can the disease be broken up. And lastly, if capillary action is not restored, the patient dies.

The author believes "the cause of all malarious, epidemic, and contagious fevers in organized existences, infinitesimal animalcules or sporules, which float in the atmosphere," but remarks, "whether organic or inorganic, it most certainly acts as a narcotic stimulant or nerve poison; the nature of the first symptoms indicates this most unmistakably."

"This point being settled, the field of investigation is at once open for means to neutralize the poison or counteract its effects." Hence "there are four points to be met in the treatment of every case of fever."

"1. To remove the cause.

2. To allay the nervous disturbance.

3. To restore the action of the capillaries.

4. To allay over-action and equalize the circulation.

For the first indication he proposes the oil of sassafras, as in effect generally antidotal.

For the second, valerian, especially the tincture.

For the third, piperin is "more effectual and pleasant than any other known agency."

For the fourth, sponging the surface with water of a suitable temperature; the internal use of rhubarb and super carb. soda; frictions again, externally, especially over the spine, with some kind of liniment containing both stimulant and anodyne properties. He adds:

Of course, many adjuvants have been resorted to, from time to time, to meet particular symptoms; but the above forms a general catalogue of the means by which I attempted to subdue the most potent enemy that has ever assailed our race, and with them I have succeeded, not occasionally, not generally, but uniformly and promptly. These means, though simple, as regards any unpleasant effects they can have upon the system, have proved as powerful in the contest with disease, as did the pebble which David used in his hostile meeting with the uncircumcised defier of Israel.

The particular method of compounding the several medicines used, is then given, with some detail, and sundry formulæ published. The principal one constitutes the celebrated "Fever Syrup" of the author, much in use by practitioners and planters throughout the South. [And in this connection we may notice that packages of the several medicines suitable for extemporaneous formation into the fever syrup, can be obtained by addressing either the author or Stretch & Forbes, druggists, also of Nashville, Tennessee. It is possible that Prof. Bowling, of the same place, would accommodate his friends by acting as agent for the same invaluable combination.]

In presenting the work, Dr. T. briefly considers the prominent theories which have been, from time to time, advanced on the subject of fevers, particularly the humoral, the spasmodic, the sympathetic, the phlegmasian, John Esten Cooke's, the Thompsonian, and the present; adverts to the combination of truth and error which each presents, the modes of

cure suggested, and then passes to a chapter on the "Mysteries Connected with Fever," periodicity, tendency to health, curative influence over other diseases, critical days, how contagious diseases secure comparative immunity from subsequent attack; continued action of the cause, &c., &c. A very considerable degree of ingenuity is manifested in the notice of these several points, and several plausible thoughts of a novel character are brought forward.

Then follows a discussion as to the modus operandi of quinine, of topical remedies, of turpentine, in curing fever, and of mercurials in operating injuriously therein. This chapter we think the best in the work, albeit we are not yet fully wrought up to the unqualified reception of the concluding paragraph:

Sassafras does whatever the turpentine can do that is beneficial, and *never does harm*, so that it is to be preferred of the two, and, with the aid of piperin and valerian, will do pretty much all that is required to be done in typhoid or any other fever.

The remaining portion of the book is occupied in a methodical statement of the practical application of the principles and remedies previously discussed, to the treatment of particular fevers, first, however, adverting to, and in the main adopting, Prof. H. F. Campbell's views on the classification of fevers among the neuroses, claiming, incidentally, that his own doctrine with reference to the capillary system, is one of equal importance. As both the views of Prof. Campbell and his own with reference to the reciprocal relation of the nervous and capillary systems had been, long ago, clearly anticipated by another authority, to whom the professional world owe a more complete acknowledgment than yet received, we shall, for the present, pass over this portion of the subject.

Let no man fear that he may not eventually receive the encomium which is justly his due. When the intrigues of interested partisans, and the prestige of the *magnum nomen* once pass a little over, the appropriate meed will be awarded. The generalizations of Hall, Campbell, Draper, and that which this author claims with reference to the capillaries, all

being but phases of another and larger view which includes and renders clear these and myriad other principles and phenomena, it is unnecessary for us here to delay to comment. The appeal lies to the coming time.

Typhoid fever Dr. T. illustrates, by various cases, treated according to his method, by himself and other practitioners. So also "bilious or miasmatic fever," pneumonia, yellow fever dysentery, cholera infantum, variola, scarlatina, and rubeola. He italicizes the rule, "*that typhoid fever treated upon the plan laid down in this book, when taken in the incipient stage, or before inflammatory complications are set up, will yield in a few days, leaving the patient but very little weakened or injured in any way.*" This position he fortifies by his own experience in large and constant practice, and by the testimony of many who have tried the same method. It will be seen that he claims not only extraordinary success in conducting typhoid fever to a successful termination, but, moreover, that he is able, when called at an early period, about invariably to abort the disease.

We must confess that, probably from dwelling in a colder clime, far from "Nashville, Tennessee," we cannot yet share this enthusiastic belief, although we think that in judicious hands the measures recommended would prove beneficial in many cases, in moderating the disease in its progress. Almost anything is an improvement over the old depleting and starvation system.

Time and space alike forbid us from further observations or comments upon this little treatise. We confess that in style and sentiment, in many parts, we find it exceedingly objectionable; nevertheless, the author gives us his positions so clearly, and appeals to experience so boldly; he challenges the profession to such simple, and, on the whole, such innoxious tests, that we are fain to say, give the matter a fair and candid trial. Buy this little book, read and laugh if you will, but when through with it, test the methods, and record the results. We have read, and admit that here and there we have laughed, and now we propose to give the method a candid and experimental investigation, and then, perchance, we may write again. A.

A NEW NEEDLE FOR SUTURES.

In the October number of the *Nashville Journal of Medicine and Surgery*, for 1860, Prof. Paul F. Eve has a description of a needle of his invention designed chiefly for metallic sutures. The subjoined extract will indicate what is claimed for it by Prof. Eve.; and perhaps will give as good an idea of the instrument as can be conveyed without the cut that accompanies its description as originally published:

"The needle is mounted on a fixed handle, and is therefore under the control of the operator. It is slightly curved, and has a lancet-like point and shoulders, to facilitate its passage through the soft parts. The novelty of its construction is the *canula* at the curvature through which the ligature, metallic or otherwise, is passed, and this may vary from one-half to an inch or two in length. I have had three sizes made, the smallest for silver wire, and the larger for lead. I have just sent an order to Mr. Tiemann, for one very delicate, more curved, and with a longer handle, for a case of staphyloraphy now under treatment for operation.

The needle, armed with the ligature deposited in the canula, is made to transfix the flaps gently held together; the wire now pushed through the canulated portion is seized and held by the fingers while the needle itself is withdrawn. The sutures are thus properly placed, with great ease and but little pain, and the wound is ready for dressing. My plan is not to cut off the extremities of the ligatures close to the knot, but simply to twist the wire to close the wound, then lay its two extremities down on the integuments, and there secure them by adhesive strips during the healing process. In this way the wound is not liable to be injured by their sharp cut ends, and the same ligature may be repeatedly used.

Obnoxious to the single objection of size, for I have long advocated small suture needles, knowing well how patients suffer in stitching the flesh; the one here described is certainly quite simple, inexpensive, (costing but $2 apiece,) is of easy, accurate, and of general, if not universal applicability. For instance, in vesico-vaginal fistula, the needles now in use are

not only brought through, but out of the edges surrounding the opening, a very difficult and painful step in the operation, and then a silk ligature is introduced, to be supplanted by that of silver; whereas by the new needle here proposed, the wire is immediately and readily applied by simply transfixing the soft parts and drawing it from the canula. Again, by reversing its action, that is, by first transfixing the flaps, then placing a waxed thread into the opening of the canula, near the point, in now withdrawing the needle, the ligature is deposited, and by repeating this movement, the continued suture is made. The cadaver may thus be rapidly, and with great ease, stitched up after a post mortem examination, by simply thrusting this sharp instrument through the edges of the incisions, and arming the canula with a small cord at its point.

PROCEEDINGS

OF THE MEDICAL SOCIETY OF THE CITY OF GALESBURG, HELD SEPTEMBER, 8TH, 1860.

At a regular meeting of the Galesburg City Medical Society held September, 8th, 1860, the following report of a committee appointed at a previous session, was received and adopted unanimously, and copies ordered to be furnished to the *Chicago Medical Journal* and the *Chicago Medical Examiner*, for publication:

Your committee to whom was referred the several subjects relating to the necessities for some legislation favoring the study of Practical Anatomy, by students and members of the medical profession, for a registry law of births, marriages, and deaths, and for the extension to medical men of the privilege of witholding, when called as witnesses, any information derived in the exercise of their professional duties, and which was necessary to the proper discharge thereof, submit the following preamble and resolutions, as expressive of the sense of this Society.

WHEREAS, In the study of the science of medicine and surgery, and to a proper understanding and practice of the

same it is indispensably necessary that the student have an opportunity to become familiar with the science of *Human Anatomy*, by practical dissections with his own hands, and

WHEREAS, Such course of study is held as a pre-requisite to graduation in all well regulated medical schools, and is also held by the public to be of paramount importance to a thorough medical education; and

WHEREAS, Both the public and the law hold medical men pecuniarily and morally responsible for a reasonable knowledge of this science in the exercise of their vocation; and

WHEREAS, The study of Human Anatomy cannot now be pursued in the State, except in direct violation of the laws thereof, and the liability to severe fines and penalties, and

WHEREAS, We believe this inconsistency and injustice of the law in the requirement of the exercise of this knowledge under penalty, which, at the same time, under like penalty, it prohibits being obtained, should be removed; and

WHEREAS, We believe that a proper registration of births, marriages, and deaths, is necessary in a legal, medical, and sanitary point of view, and will conduce greatly to the general welfare of the inhabitants and the advancement of the industrial interests of the State. And

WHEREAS, By the common law of the land, and by the rulings of the courts in this State, physicians and surgeons may be made to disclose any information acquired confidentially in their attendance professionally upon any person, no matter how repugnant to their sense of propriety, honor, and morality, such disclosures may be; therefore,

Resolved, That we deem it wise and necessary, on the part of the Legislature of this State, to make some provision which will admit students of medicine and members of the profession to supply themselves with materiel from subjects interred at the public expense, when not claimed by relations or friends, under such restrictions for the protection of the public interests and feelings as the delicate nature of the case may suggest.

Resolved, That a law for the registration of births, marriages, and deaths, will contribute much to a better understanding of our climate, vital statistics, sanitary and industrial condition; to say nothing of the legal, historical, and medical knowledge otherwise accruing therefrom.

Resolved, That we hold the relation of physician and patient to be of the most private, personal, and confidential character; and as such should ever be held inviolate, and as exempt from inquisitorial proceedings as those of the attorney and his client. That in accordance with these sentiments we

claim that no person duly authorised to practice medicine and surgery should be compelled to disclose any information which he may have acquired in attendance on any patient in a professional character, and which information was necessary to enable him to prescribe intelligently, as a physician, or do any act as a surgeon.

Resolved, That the statutes of the States of New York, Michigan, Iowa, Wisconsin, and Missouri, extending to the medical profession these legal privileges, are founded in justice and good morals, and have a proper regard for the peace of families and the community, and therefore receive our entire approval in meeting the wants of the profession in this State.

Resolved, That at the proper time this Society will prepare a memorial to the Legislature calling attention to these, as we believe, rightful statutory provisions, and ask for such enactments as the several cases herewith presented may require.

Resolved, That we recommend similar action to other medical societies, and we solicit their active co-operation in carrying out the spirit of these resolutions.

M. K. TAYLOR, M. D., President.

H. M. STARKLOFF, M. D., Secretary.

☞ We take pleasure in returning our thanks to those of our patrons who have promptly responded to the bills forwarded with the last number of the *Journal*, and whose names appear in the present issue. We trust we shall not be forgotten by those who have not yet paid, and that the October list of receipts may be more ample than that for the preceeding month.

☞ The Illinois State Medical Society holds its Annual Meeting for the year 1861, on the first Tuesday of May next, in the city of Jacksonville.

☞ Prof. J. Adams Allen, of Rush Medical College, has been appointed to the Chair of Materia Medica, in the Chicago College of Pharmacy. The latter appointment does not interfere with his teaching in the Medical College.

TESTIMONIALS

TO

ELWELL'S MEDICO-LEGAL TREATISE

ON

MALPRACTICE AND MEDICAL EVIDENCE.

From the great English Physiologist,

WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S.,

Prof. of Medical Jurisprudence in the University of London.

"I KNOW OF NO INSTANCE IN WHICH THE COMBINATION OF LEGAL AND MEDICAL KNOWLEDGE HAS BEEN SO REMARKABLY SHOWN AS IT HAS IN MR. ELWELL'S TREATMENT OF THE SUBJECTS HE HAS UNDERTAKEN."

From the Hon. JOHN McLEAN, *of the Supreme Court of the United States.*

CLEVELAND, 19TH JULY, 1860.

DEAR SIR:

I thank you for your excellent work on Medical Jurisprudence. No one who did not unite both Professions could have written so valuable a book. I have no knowledge that any one, under similar circumstances, has attempted to do what you have so well performed.

This work entitles you to the highest respect and confidence, and, I doubt not, that you will find a reward for your efforts in the benefits conferred on your fellow citizens at large.

Very truly, yours,

JOHN McLEAN.

JOHN J. ELWELL, Esq.

Extract from a letter from Prof. FRANK HASTINGS HAMILTON, *author of a new and valuable work on Fractures and Dislocations.*

BROOKLYN, N. Y., JULY 17, 1860.

DEAR SIR:

I have been waiting until this moment for my copy of your book, but it having fallen into the hands of a friend in Buffalo, a Lawyer, I have not yet received it—but I have seen Dr. Flint's copy—and I will not wait longer to say to you that it appears to me that you have accomplished an important work. To you belongs the credit of having opened the way in this direction—always the most difficult labor. The book must prove of great value both to Medical men and to Lawyers. Indeed, I do not see how a Lawyer can dispense with it.

I congratulate you also upon the favorable notices which it has received from the journals every where.

I remain, yours, truly,

FRANK H. HAMILTON.

JOHN J. ELWELL, Esq.

From the Hon. HENRY P. THORNTON, *of Indiana.*

I have been the owner and have had in my Law Library, during the period of my practice, several works on the subject of Medical Jurisprudence, among which are Beck, Chitty, Ray, Taylor, Dean, Christison and others of less note, and I look upon the work of Prof. Elwell as being better adapted to the use of the Practicing Attorney than either of the others. The circumstance of its author having been distinguished for eminent ability, both as a Physician and a Lawyer, confers peculiar claims on the work to preferment.

HENRY P. THORNTON.

ALFRED ELWELL & Co.

TESTIMONIALS to Elwell's New Medico-Legal Treatise on Malpractice and Medical Evidence, comprising the Elements of Medical Jurisprudence. Price $5. JOHN S. VOORHIES, *New York;* ALFRED ELWELL & Co., *Cleveland, O. Sent by Mail or Express on receipt of Price, costs paid. Address* ALFRED ELWELL & Co., *Cleveland, Ohio.*

Fonblanque, a distinguished English barrister, and Paris, an equally distinguished physician, united their forces and professions in a work on Medical Jurisprudence, and the product of the connection was an excellent treatise on that important subject.

We have just read an American work on Medical Jurisprudence, the literary history of which reminds us of the co-partnership of Paris and Fonblanque. Dr. Elwell, the author of the volume before us, having studied and practiced medicine for several years, turned over a new leaf, and studied and practiced law for as long a time, and now presents us with the product of the two professions, united by a Siamese form of attachment, which makes it as easy to work for and with one, as for and with the other. The design in this work, it will be seen, is novel, and it is excellently well accomplished. If it do not sustain the old adage that two of a trade can never agree, it certainly does prove that two of the most diverse callings may act in perfect harmony, and for the equal benefit of both.

We heartily commend Dr. Elwell's work to our readers. It is from one who knows well what his profession wants in such a work; and in our judgment he has met and satisfied that demand.—BOSTON MEDICAL AND SURGICAL JOURNAL, May 1860.

While the work will be regarded as a valuable contribution to medical jurisprudence in general, the portions devoted to the subject of MALPRACTICE MUST PROVE OF PECULIAR VALUE. They will effectively aid in a just determination of a class of cases, to often unrighteously prosecuted, and which involve either the safety of the community or the sanctity of individual professional character.—E. DELAFIELD SMITH, author of Smith's N. Y. Reports.

It is a book which should be in the library of every Physician and Surgeon. Any member of the profession who will purchase it, and spend two months in its study, will be well repaid for the cost and labor.—JOHN DELAMATER, M. D. LL. D.

I have had occasion to refer to, and cite in Court, Elwell's work upon "Malpractice and Medical Evidence." In my opinion, it is A MOST CONVENIENT AND RELIABLE BOOK OF REFERENCE IN ALL CASES OF MEDICAL JURISPRUDENCE. The medical and chemical writers have given us voluminous treatises upon their particular branches of science, as have also the legal writers, thus leaving us business men to grope through the whole mass, in order to extract therefrom a few practical and and elementary rules and principles for every day use. IN HIS TREATISE HE HAS SAVED US THIS LABOR, BY GIVING US COMPACTLY AND SUCCINCTLY, IN A CONVENIENT FORM FOR REFERENCE, WITH ALL THE RECENT AUTHORITIES, SO MUCH, AND NO MORE, OF THE TWO SYSTEMS OF LAW AND MEDICINE, AS WE ARE MOST FREQUENTLY CALLED UPON TO DEAL WITH IN THE PRACTICE OF OUR PROFESSION.—HON. JOHN F. J. FITHIAN, New York District Attorney.

It should occupy a conspicuous station as a book of reference in the library of every attorney and physician. For the general reader it abounds in instructive and valuable information.—To my classes of medical students I recommend it in a special manner as the first book for their study of medical jurisprudence.—JARED P. KIRTLAND, M. D.

Your work is a great DESIDERATUM, and may be considered one of the most practical in the English Language, and, as such, is here welcomed by two learned Professions.—HON. A. J. SEMMES, M. D., of New Orleans Charity Hospital, late Surgeon to the U. S. Prison, Washington City, D. C.

Where every thing is so well discussed, substantiated and fortified by a judicious selection of leading authorities, it is unnecessary for me to point out, or indicate by name, any particular chapter as pre-eminently meritorious. I am convinced, however, that the one "On the Position of the Courts in Insanity," is destined to exercise a most beneficial influence on the profession of both Law and Medicine, by exhibiting to each the true position which the interests of justice as well as of humanity require at their hands.—PROF. ORDRONAUX, of the Law department of Columbia College, New York.

This book appears to be a full and perfect treatise on the subjects of which it professes to treat. It has received the endorsement of some of the most eminent legal men, as well as of physicians, in this country, and from a cursory examination it appears to be full, accurate, and prepared with care. Such a book should be in the hands of physicians generally, who are too often not aware of the responsibility which they assume in accepting the charge of surgical cases.—Prof. DAVID BRAINARD, Editor of the Chicago Medical Journal.

"Some books," says Lord Bacon, "are to be tasted, some to be swallowed; some few to be chewed and digested." Prof. Elwell's belongs most emphatically to the latter class, and its frequent mastication and digestion by both professions of Law and Medicine will be found to afford them that very pabulum for which they have long and anxiously waited. Indeed, considering the very great number of legal and medical text-books which have been put forth in elucidation of almost every speciality which professional necessities have created: and looking even at those on Medical Jurisprudence which best evince the syncretism of two great sciences, it is singular to perceive that the subject of malpractice is nowhere discussed. Even the omnivorous and encyclopædic Beck, who, with probe and tentacle, has explored every rill and rift, every peak and cavern of forensic medicine, and has heterogenously incorporated everything that was ever said or printed upon this subject into his text; overlooks entirely the very important and magistral topic of malpractice. * * We cannot help saying that if there be among all the chapters in this truly valuable book, one which we consider as a keystone of all the rest—and whose honest, frank and conservative tone will do more to beget a true medico-legal union before the courts, where now we so often have a complete antagonism of the two professions, it is the chapter on "The position of the Courts upon Insanity." Indeed, throughout all his discussions upon this vexed question, Prof. Elwell shows the fruits of a large observation of facts, as well as of critical examination into the legal and physical causes of divergence between the professions of law and medicine. And we shall be much mistaken if the dissemination of his logic does not produce a radical change in the minds of many of those whose chief delight it has been, in season and out of season, to heap reproach upon the courts, for not surrendering at once some of the most cardinal principles of human government as applied to rational and responsible beings. * * We cannot close this brief and imperfect review of Prof. Elwell's book, throughout which we have seen so much more to praise and to admire than we have dared give utterance to, without calling attention to the fact that the field trodden by him is both a new and a rich one.—Extracts from a Review of the work in the NEW YORK JOURNAL OF MEDICINE.

I am convinced that your book cannot be read by medical men but with great profit. If read and studied by lawyers, it will also benefit our profession by diminishing the number of Malpractice suits.—Moses Gunn, M. D., Editor Detroit Med. Journal.

Having carefully examined "Elwell's Malpractice and Medical Evidence," I am fully convinced that it is a work of much merit and well calculated to diffuse and increase Medico-Legal knowledge—a knowledge sadly defective in both professions. Such, too, is the industry and sound judgment exhibited by the author in the collections of facts bearing on subjects treated, that it is one of the most reliable books of reference on many of these perplexing points so frequently raised in Courts of Justice in cases of Malpractice and Toxicology.—J. Lang Cassels, M. D. LL. D.

Altogether, while the work must relieve the attorney of the great labor of exploring the dark mazes, theories and speculations which load down and obscure the science of Medical Jurisprudence, while examining questions in this department; to the medical man you have furnished what he has long been in need of, what he can find nowhere else, and what he must understand before he is properly qualified to honor his profession, contribute to the ends of justice, and so armed as to defend his practice.

The work has been adopted as a text-book in our College, and must become such throughout the land.—Proctor Thayer, M. D.

It is not often that the author of a medico-legal treatise happens to be a member of both the professions to which its teachings are directed. The medical education of the author seems to have fitted him well for the task he has assumed. Dr. Elwell's book must be looked upon as a valuable addition to medico-legal literature.—American Journal of Pharmacy, Philadelphia.

In this day of many books and typographic fecundity, it is a real pleasure, as it is a rare privilege, to greet a book like this, which bears the bold, unhackneyed stamp of originality. This work being, moreover, the very first of its kind published in the United States, is a compliment to our national pride which we trust will not be overlooked by his countrymen.—N. Y. Journal of Medicine.

The arrangement of the various subjects treated is excellent; and the reference to the highest authorities will enable the reader to consult them with perfect ease. In this part of the work the author has furnished abundant proof of careful honest study, and the best evidence of the value of his work. Following Malpractice, are several chapters on Evidence, its principles and application. We have in this department the same assurance of the fidelity of the author as in the preceding. To the physician the chapters are of special value.—Boston Medical and Surgical Journal.

As either a text book or as a medico-legal vade-mecum. I cannot conceive its superior, because I do not know its rival in existence.—Prof. Jno. Ordronaux of Columbia College.

I consider it the most valuable elementary treatise among the recent contributions to legal and medical science. It is alike indispensable to the Lawyer and Physician. This book supplies just what is needed for both professions.—Judge Wm. Lawrence.

We look upon the Treatise of Dr. Elwell as the best in our language on this subject, and doubt not it will become the standard authority, not only in our courts of law, but in our medical schools and colleges.—D. Meredith Reese, M. D., LL. D., Editor of the New-York Medical Gazette.

I am sure it is a work that will be greeted at the Bar, and because the most useful that the medical profession has ever had as a refuge in difficulties and dangers; that profession will also welcome it.—Prof. Valentine Mott, M. D., LL. D., N. Y.

The book is concise, complete, and comprehensive.—N. Y. Independent.

I have been much pleased with the scope of your work, and in the parts which I have examined, have found nothing of which I could not approve.—Prof. Geo. B. Wood, M. D., Jefferson Med. School, Philadelphia, and author of Wood's Practice of Medicine, and the U. S. Dispensatory.

The author has appreciated the difficulties which both physicians and lawyers labor under in suits of Malpractice. His book is an exceedingly valuable one to both professions. While he seems to be a fine jurist, he at the same time gives evidence of having mastered the profession of medicine. The chapters on Medical Evidence are especially worthy of notice. The author is a clear writer, and we recommend the book to all our readers.—Cincinnati Lancet and Observer.

The earlier part of the book is occupied with Malpractice in cases of amputations, etc., and constitutes a new and valuable contribution to medico-legal literature. The book possesses particular merit.—Boston Law Journal.

I sincerely thank you for your very excellent work on that branch of Medical Jurisprudence, which is practical. I have looked over your volume pretty carefully, and I am convinced and satisfied you have done a service to the world, for which the public should be greatful.—Judge Bellamy Storer, LL. D., of Cincinnati.

Such a work has long been needed. You have done the various topics of which you treat ample justice.—S. D. Gross, M. D., Prof. of Surgery in the Jefferson Medical College, Philadelphia.

I took occasion to-day to speak to my class of your Medico-Legal Treatise—exhibiting the volume to them. Speaking of impregnation from corpora lutea, I had an opportunity of making an episode and alluding to it.

I cannot doubt that it will prove a useful guide to the solution of many of those intricate questions which present themselves so frequently to the medical and legal practitioner.—Robley Dunglison, M. D., LL. D., Prof. of the Institutes of Med., etc., in the Jefferson College, Philadelphia.

We regard the work as bridging a chasm hitherto existing (for none of the works on Medical Jurisprudence have been at all sufficiently practical) in the medical and legal professions, particularly in the former. We recommend its merits, which we consider paramount, to our medical brethren.—N. Y. Medical Press.

I have found it accurate, valuable and learned. It posseses one advantage over most other works of a similar kind, and that is, it is written by a lawyer as well as a physician—a thing in my judgment indispensable in a treatise on this subject.

I regard this book as quite essential to the library of every practicing lawyer, and trust it will command the attention its merits deserve.—William Curtis Noyes, N, Y.

THE CHICAGO
MEDICAL JOURNAL.

VOL. III. November, 1860. NO. 11.

Original Communications.

ARTICLE 1.

CASE OF SPINA BIFIDA—DEATH—POST MORTEM EXAMINATION.

This child, a female, was born February 8, 1860. Was well formed except a tumor in the lower part of the back. The tumor was situated directly over the spinal column, nearly circular, and a little larger in circumference than a silver half dollar; was soft, flat, and fluctuating, and but slightly elevated above the surrounding integument; the covering, membrane-like, translucent, a portion of it quite thin and transparent. On the covering there was a spot about the size and shape of a half almond, quite red and flesh-like. Thirty hours after, this spot was thinly covered with healthy-looking pus. The contents of the tumor appeared to be from one to two drachms of clear, serum-like fluid.

February 9.—Dressed the suppurating part with simple cerate.

Feb. 10.—Commenced compressing the tumor, by using a mixture of equal parts of collodion and castor oil, continuing

the above-mentioned dressing to the suppurating spot. Functions of bowels and bladder well performed. The left lower extremity more relaxed than the right; the left foot scarcely if at all, sensitive to tickling.

Feb. 13.—No perceptible change except a slight increase in contents of tumor. Applied collodion undiluted.

March 1.—Suppurating spot healed; collodion continued. Child growing finely.

June 16.—Was called in to-day. (My note book goes on to say.) For the past few days the child has been peevish and fretful. On the surface of the tumor the suppurating spot has reappeared; it is quite opaque, with red and somewhat raised edges. This morning a considerable quantity (from two to three teaspoonfuls, the mother thought) of clear, water-like fluid gradually escaped from the inflamed surface. Now the child is not as fretful but does not like to be moved.

June 18.—Yesterday morning no oozing from the tumor. This morning fluid trickles away with tolerable freedom, cloths on the back of the child wet. Child quiet; takes the breast readily; bowels slightly constipated from the use of anodyne medicines; tumor dressed with simple cerate; collodion discontinued.

June 22.—Child died to-day at noon. Since last date it has grown constantly more fretful and restless; was somewhat quieted by Godfrey's cordial. About twenty-four hours before death began to have light convulsions. Slept the greater part of last night and had no convulsions. Upon awaking this morning the nervous disturbance manifested itself in almost constant jerkings of the lower extremities, the left more than the right. If the child fell asleep for a few seconds the jerking would cease, to be commenced again immediately she awoke.

The left lower extremity has had, except during the first week or two, a flexed position in all its joints, toes on the foot, foot on the leg, &c.; has been less sensitive to the touch than the right, but for the last few days both have been equally sensitive. The tumor is now sunken and apparently empty.

Dissection.—An incision was made through the tumor, extending several inches above and below it, along the spine. A few drops of pus were seen directly below the suppurating spot, and after cutting through a considerable depth of jagged soft tissue—apparently adipose and cellular—the spinal cord was seen lying in full view. The vertebral laminæ and processes were spread wide apart so as to form almost a flat surface with the posterior portion of the bodies of the vertebræ and the last two of the dorsal.

The spinal nerves appeared to pass off regularly through the intervertebral notches; the cord was somewhat lacerated, probably done in the process of dissection.

I presume the treatment by injection of iodine would not have answered in this case. In the beginning I gave an unfavorable prognosis, without, however, knowing the difference between those cases that admit of injection with hope of success and those that do not.

There was something noticeable, I think in the shape of the child's head; as she grew older it lost its round form, became flattened in front and laterally and correspondingly elongated in the direction of its vertex, but whether the spinal affection had anything to do with it I do not know. Albeit the child was as bright and intelligent as any child of the same age.

ARTICLE 2.

CASE OF SUICIDE BY OPIUM AND STRYCHNINE.

REPORTED BY J. S. PASHLEY, M. D., OSCEOLA, STARK CO., ILL.

On Sunday, Sept. 2d, 1860, I was called to see A. R. Wells, a native of New York, for some years a resident of Valparaiso, Chili, but then on a visit to friends here. Age 29; stoutly built; in ordinary health for some time previous, though mentally depressed by pecuniary embarrassment, and

disabled from a paralytic attack which occurred five years previously, and was repeated three years ago, leaving the left side of the body entirely useless.

From his own statement, made to me after being called, he had, for purposes of self-destruction, taken sixteen pills of his own compounding, containing strychnine gr. 3, opium 1 drachm, and an indefinite quantity of quinine, about 10 o'clock of the evening previous; so that when I saw him at 10 A. M. of the 2d, he had been twenty-four hours under the operation of his dose, resolutely denying to his friends any unusual feelings or sensations, in spite of his strange appearance and actions.

Present appearance, (10 A. M.)—Every evidence of the most extreme cerebral excitement; conjunctiva highly injected; eyes suffused with tears, pupils contracted, and the whole face of a deep red color, mouth and lips dry and clammy, tongue tremulous and covered with a white brownish fur; voice dry, husky, and incoherent in expressions; whole surface hot, with profuse perspiration; body and limbs in violent tremor, and at intervals spasmodic action of all the muscles, alternating with comparative quiet and drowsiness, from which he was easily aroused. Pulse 120, full and forcible; carotid pulsating violently; the respiration labored, and the air of the room redolent of opium. Complained only of feeling "queer."

As speedily as possible administered zinci. sulph. in full emetic doses, in strong coffee, a repetition of which was required twice before full and free emesis could be obtained, by which opium was freely ejected.

Dr. Boardman, of Elmira, was called *en passant.*

11 o'clock.—Patient much more quiet and force of the heart's action somewhat diminished. He now required frequent rousing, but when roused would start violently and remain delirous for some minutes. Gave croton oil gtt. iii, with camph. gr. viij., applied bladder of cold water to head. Perspiration still very profuse.

1 P. M.—Profound stupor suddenly supervened, from which no effort could arouse him. Cold water was applied to the

spine and occiput *ad libitum* followed by violent friction shakings, &c., but of no avail.

Muscular system alternately relaxed and rigid; deglutition impossible; pupils contracted still more; breathing stertorous; surface dry and cooler; pulse rapidly sinking; heart's action very irregular.

3 P. M.—Superficial vessels of head and neck suddenly engorged, surface became livid, pulsation at the wrist not readily observable, and those of the heart intermittent. The blood seemed to leave the heart en masse, and rush to the head during the interval of two or three beats, alternating thus for about half an hour, when more regular and rapid action of the heart followed.

4 P. M.—Comparatively quiet, having previously applied sinapism to spine, and blisters to inside of the thighs, an electro-magnetic battery of considerable power was used, with the effect to stimulate muscular and nerve force, and by keeping up the heart's action, maintaining the normal heat of the body to the last moment of life.

Sept. 3d, 8 A. M.—Continued as before, only that on violently shaking, the jaws and eyelids would close, being generally more susceptible to electric force. Respiration sighing; some symptoms of peristaltic action in bowels. Administered enema of croton oil, chlor. soda and lard, with warm water, but which was speedily returned.

1 P. M.—Succeeded in giving croton oil gtt. ij and a small quantity of camphor in water. The same being slowly but effectually swallowed.

2.15 P. M.—While standing by the patient and somewhat cheered by the apparently gradual return of sensibility for the past four or six hours, the pupils suddenly dilated, followed by a slight movement of the body, and death closed the scene.

From the above somewhat lengthy detail, it will be observed that the patient was under the operation of his dose thirteen hours before complete stupor supervened, during which time, as far as observed, he was subjected to a continual struggle for the predominance in effect of the strychnia

and opium, the narcotic finally prevailing, so that he remained in the most profound stupor for twenty-five hours and fifteen minutes longer, making in all thirty-eight hours and fifteen minutes before the fatal termination.

A hasty examination of the brain was permitted, nineteen hours after death, in presence of Dr. E. R. Boardman, and J. G. Boardman, medical student.

Found longitudinal sinus and all the superficial vessels unusually engorged, more particularly on the right side. The arachnoid membrane of that side presented a remarkable contrast to its opposite, being highly injected, and consequently very dark in color.

The cavity of the right ventricle was greatly enlarged as compared with its fellow, and its walls much more readily broken down. All the brain matter on the right side was unusually soft, and could with difficulty be handled.

Our conclusions were, that the abnormal condition of the brain was owing to previous disease, only tending to urge on the fatal result of the poisoning.

ARTIC E 3.

CANCRUM ORIS.

BY CHARLES BRACKETT, M. D., ROCHESTER, IND.

Hoffman, aged fourteen months, of a weak habit, and lymphatic temperament; the child of a diseased mother, presented, on the 7th of July, 1860, at 10 o'clock A. M., the following appearances:

A small, dark spot under the right ala nasi, a thin, acrid discharge from both nostrils, some little salivary discharge mixed with thin blood, a bright redness of the whole upper lip, on the right side, reaching nearly to the center of the cheek, the redness accompanied by a swelling of the tissues

of a stony hardness, so far as the redness extened; internally the lip, opposite the dark spot under the ala nasi ulcerated, of dark, dirty red appearance.

Abdomen puffed but flabby, lungs sound, eyes bright, pulse 160, appetite good, urine pale, bowels rather loose, stools offensive. I told the parents that the disease was black canker; would probably destroy the tissues so far as they were red and hard, but that life might possibly be saved.

They had been using several washes, such as acetat. plumbi. sul cupri, but all irritants used, only added to the rapid spread of the disease. At 7 P. M. of that day, a piece of the lip, its whole depth, and as broad as my fore-finger, was black and sloughed out. Teeth and gums not affected. The disease thence spread as far as the limits I had assigned it laterally, and upward so as to take a small portion of the right ala, and septum nasi till the evening of July 19th, when it died from exhaustion. No post mortem made.

I treated the disease locally only with mild unirritating washes, believing that the few fatal cases of this disease which I saw in 1851, and reported in the May number of the *Northwestern Medical and Surgical Journal*, at this stage were rendered more rapid by the various caustic and irritating applications then used, or at least were not benefited by them. Internally I gave quinine and wine, with small doses of iodid. potas., morphia and soda, or carb. ammonia, as necessary to relieve pain, also using daily small doses of ext. belladonna. Phosphates of iron and lime were also given with a stimulating, nourishing and easily digestible diet. Urine, after a few days, became dark, and was passed with much pain. On the 14th I allowed them to use a wash of sul. cupri, alum, and honey, it had, however, no perceptible effect.

A sister of the deceased, on the 17th July, had a swollen upper lip, which was abraded on the mucous surface, and of a bright red color. I touched it twice with nit. argt. on the 17th, and all disease vanished.

I am forced to believe that no treatment will stop the gangrene and erosion, after the parts have become partly disorganized by a few days of the stony hard swelling pre-

ceding the actual gangrene. During the first few days the disease may be easily subdued, but after that I believe, with most others, that it is very little under the control of remedies.

This child had previously had several attacks of sore mouth in some of its various forms, which had been easily subdued by Dr. Collins, of Bloomingsburgh, Fulton county, where the parents reside.

I have had an unusual number of cases of sore mouth this season, but none troublesome in the way of cure.

ARTICLE 4.

INFLAMMATION OF THE PAROTID GLANDS.

BY CHARLES BRACKETT, M. D.

Sunday, August 26, 1860.—Mr. Sellers, of Marshall Co., brought to me his boy, aged about six years. A bright boy in all respects. Scrofulous diathesis; blue eyes, light hair; firm globular tumor under each ear, reaching forward, of the size of a hen's egg; had suffered; does yet cause some pain; feverish by turn. Glands inflamed about ten days; had been treated or prescribed for by Drs. Manneville and Wertz. I gave morphine when necessary to procure rest. Applications of warm water dressings, stramonium leaves, &c., and directed iod. if suppuration did not take place in a few days. The tumors were hard, skin not discolored, firm, and with no appearance of suppuration.

On Sunday night, after their return home, which is some twelve miles from here, they sent the boy to bed as well as usual, except some fatigue from his long ride. About midnight he made some noise, and awakened the family by his cries. After a few minutes he appeared better. Soon again he appeared to suffer, with considerable dyspnœa. They

then sent for Dr. Wertz, living not far off. Before he came, the boy was easy again. Soon after his arrival, he was again suffering; matter poured out of his nostrils and mouth. He become easy again, and his father thought his danger was all past; took him in his arms, the boy breathing easily; became suddenly pale and expired without a struggle. Why did he die or how?

Editorial.

BOOK AND PAMPHLET NOTICES.

On the Diseases, Injuries, and Malformations of the Rectum and Anus; with Remarks on Habitual Constipation. By T. I. Ashton, Surgeon to the Blenheim Dispensary, etc. From the Third and Enlarged English Edition. Philadelphia: Blanchard & Lea; 1860, pp. 292.

A good work on the rectum was a desideratum in medical literature, for it is true, as stated by Mr. Ashton, in his preface, that the diseases of this part "have been but superficially noticed by surgical writers generally, and but imperfectly understood by many of the profession."

The remarks on the best method of exploring the rectum, where more than a digital examination is required, are judicious. He advises the use of the coarse or rectum speculum, with an opening on one side, or that with two blades. Perhaps the following directions on the subject of enemata, may be found of service:

"Enemata, in most affections of the rectum, as well as in many other diseases, are productive of the greatest benefit, more effectually accomplishing the object of the physician

in removing accumulated excretions than any other means, and saving the stomach and commencement of the intestinal canal from the irritation and nausea which aperient medicines induce. Whatever the form of the instrument, it is important that the jet should be elastic, and not, as usually supplied by instrument makers—made of ivory or metal, by which laceration or any other injury of the bowel is very readily inflicted. Pumps are objectionable for the reasons that patients are apt to throw up too large or too small a quantity of fluid, the necessity of a basin or other receptacle, and the inconvenience of employing both hands. From their simplicity and convenience, I recommend either a ten ounce India-rubber bottle with a stop-cock, or a cylindrical reservoir fitted with a piston: the jet is seven or eight inches in length, and being detached, affords the important advantages of great facility of introduction into the bowel: and by means of a plug, its connection with the instrument is most readily affected. When it is intended by enemata to unload the colon of accumulated fœcal matter impacted in its sacculi and distending that intestine, a long, elastic tube, known as "O'Beirne's tube," should be passed up the bowel, and the fluid injected by means of a well made double action pump. Before using the injecting apparatus it should be filled with fluid, otherwise the air contained will be forced into the patient's bowels, and cause much pain and annoyance; this precaution is highly necessary, for it is astonishing how much suffering will be induced if it is disregarded."

On the subject of irritation and itching of the anus, an affection often found so difficult of cure, the views of Mr. Ashton are worthy of note:

"In the treatment of this very troublesome and frequently obstinate disease, great patience and perseverence will often be requisite, both on the part of the patient and medical attendant. By the latter it must be borne in mind that the affection is rather a symptom of constitutional derangement than a disease *sui generis*, therefore the first endeavor must be to ascertain the cause producing it. In females, when the menstrual function has ceased, or is about to do so, it will be

most important to keep the bowels free, to attend to the secretion of the liver, kidneys, and skin, and to direct exercise in the open air to be taken daily. If ascarides in the rectum give rise to the affection, they must be dislodged by such means as are recommended in treating of the subject under the head of foreign bodies in the rectum. If hemorrhoidal tumors or condylomata exist, they must be removed by excision, unless the hemorrhoids are internal, in which case the ligature or concentrated nitric acid must be employed. If the digestive and assimilative functions of the patient are feeble, and the constitution is otherwise delicate, a nutricious but plain diet will be necessary, conjoined with proper exercise, and the administration of alterative, tonic, and chalybeate medicines; but if the contrary be the case, and he has been accustomed to indulg in highly seasoned dishes, and to partake freely of wine aud spiritous liquors, he must be restricted to a vegetable diet, and the quantity of the stimuli considerably reduced, if not altogether disallowed. Various remedies have been recommended in this disease, and will be found more or less efficacious, according to the circumstances of the case; among them may be mentioned the decoction and infusion of cinchona with nitric or nitro-hydrychloric acid, and the various preparations of iron: the bowels must be acted on by the occasional use of purgatives. When an eruption exists on other parts of the body, five grains of the compound pill of chloride of mercury should be taken at bed time, or the same quantity of mercury and chalk with hyoscyamus, coninm, or extract of poppy; and the compound decoction of sarsaparilla two or three times a day: when the gums become tender, the quantity of mercury must be reduced, or even left off for a short time, as ptyalism to any extent must be avoided. It will be advisable to continue the remedies for a few weeks after the disease has subsided, in order to guard against a relapse.

"The due attention to the functions of the skin has been insisted on, and much advantage as well as comfort will be derived from the use of the warm bath every second or third day.

"The local remedies that will be found useful are lotions containing acetate of lead with wine of opium, the bicyanide of mercury in bitter-almond mixture, lime water and calomel, or the bichloride of mercury, or a saturated solution of biborate of soda, ointments of lead, zinc, nitrate of mercury, &c.; but that which will frequently be found most serviceable, is the application to the part of a solution of nitrate of silver sufficiently diluted not to produce vesication, but only to excite a slight exfoliation of the skin."

Passing over the chapter on excresences, as being of less general interest, we come to that on contraction of the anus which sometimes exists without being suspected. Contraction may be congenital, may result from wounds and operations, particularly those occasioning loss of substance, from venereal disease, from inflammatory action, and it is often accompanied by fissure, either as cause or effect. This enumeration of the causes is sufficient in itself to put the surgeon on his guard against removing, unnecessarily, any portion of skin or mucous membrane in operations for fistula or piles.

"The treatment must be both medical and surgical. If inflammatory action be present, it must be subdued by topical blood-letting, hot fomentations, and cataplasms. The bowels must in all cases be kept loose by laxatives, as castor oil, confection of senna, &c.; great ease will be afforded by emollient enemata. The diet must be very moderate in quantity, and unstimulating in quality. The anus must be dilated by the introduction of bougies, and must be effected with much gentleness, for more pain will be experienced in this disease than in stricture of the rectum, in consequence of the greater sensibility of the integument than of the mucous membrane. When the instrument is used, the patient should rest on a couch or bed, with his knees drawn up. The better time for passing the bougie will be shortly before the usual period of the bowel's acting. Ablutions with soap and water, twice or thrice a day, will add to the patient's comfort, and lessen the local irritation. If much pain and nervous excitement be occasioned, anodynes may be required, which may be administered either by the mouth, or as suppositories, or enemata."

The chapter on hemorrhoids or piles is interesting, and we propose to make extracts sufficient to enable the reader to form an estimate of the author's views of pathology and treatment:

"*External Hemorrhoids.*—These tumors occur at the verge of the anus, and are covered by the thin integument of that region; but occasionally they will be observed to extend a short distance within the anal orifice, and will then be partly covered by the integument, and partly by the mucous membrane of the intestine. In form they are mostly globate, and have a broad extended base; they are of a livid color at first, but lose that as their active state subsides. They are tense and elastic to the touch, and exquisitely painful when inflamed, the anguish then being so great that the patient is unable to walk or take any exercise: in some cases even sitting is impossible. They consist of the integument and cellular tissue into which blood has been extravasated, as a result of the congested state of the hemorrhoidal vessels and determination of blood to them, produced by causes to be hereafter mentioned; generally, the blood is encysted in a central cavity, having a smooth glistening surface; in some cases there are several of these cavities filled with blood.

"After the acute stage attending the development of these tumors has subsided, the blood that has been effused into their interior becomes absorbed, and if they have not been distended to any great extent the skin contracts, and the parts resume their natural condition; but if the tumors have attained the size of a cherry, or larger, the elasticity of the integument will have been destroyed by over-distention, and upon absorption of their fluid contents pendulous flaps remain, prone to take on increased action, and form excrescences which may attain a considerable size, and occasion as much or more suffering than the primary disease."

"*Internal Hemorrhoids.*—The tumors constituting internal piles, consist of a morbid alteration in some portion of the mucous membrane of the rectum, and submucous areolar tissue, with an augmented and abnormal development of the capillary vessels. Like the external variety, they were for-

merly considered to be a dilatation of the veins. It appears somewhat surprising that this opinion should have been retained by many of the later writers; for when speaking of the character of the hemorrhage, they described it as florid and bright, and more nearly resembling arterial than venous blood, which it would not if it were poured out from veins, particularly when they are in a dilated and debilitated condition: in them the circulation must necessarily be slow, and consequently the blood would acquire a deeper color. But examinations on the living subject, and dissections on the dead, clearly demonstrate a different condition. A varicose state of the hemorrhoidal veins is not unfrequently met with; however, they form tumors very different in character, and in the symptoms they occasion, from those now under consideration.

"By dissection, internal hemorrhoidal tumors will be found to consist of both arteries and veins, the latter capacious, not in a diseased condition, but merely of abnormal development; the areolar tissue of the mucous membrane is hypertrophied, and if the tumors have existed long, and been subject to repeated inflammatory attacks, it will also be condensed. The surface of these tumors is frequently villous, presenting to the unassisted eye a granular appearance: they generally bleed freely if rudely touched, or accidentally scratched by the nail during an examination, the blood being of a bright red color. Dr. Bushe states that he has been able to rub off an exceedingly vascular and fragile and adventitious membrane from their surface, and is of opinion they may thus acquire an increase in magnitude. To the touch they have a spongy, elastic feel, and by some authors are considered to resemble erectile tissue in structure; had they compared them to those abnormal developments of the vascular system termed aneurism by anastomosis, the analogy would have been more correct.

"Internal hemorrhoids vary much in size and number, but the accessory phenomena attending them, such as pain, hemorrhage, &c., are not increased in proportion to either, and cases are met with in which a greater loss of blood occurs, or

a greater amount of pain and suffering is induced from one or two small piles, than when there are several large ones.

"When one of these tumors is situated near the anus, though it may not have attained any great size, it is very liable to be prolapsed during defecation, particularly if the bowels are costive, giving rise to pain, spasm of the sphincter, and other distressing symptoms. Those that are situated higher in the bowel are not prolapsed so early in the disease; but, by repeated irritation and the dragging down they experience during the time the fæces are evacuated, they become elongated, and at length protrude externally: at first they return within the anus, by the action of the muscles of the part, but after a time the patient finds he is obliged to replace them with his fingers. In some cases this is done with facility, but others present where greater difficulty is experienced, owing either to the size of the tumors, or their being constricted by the sphincter muscle: under these circumstances the suffering is very great, and the individual is induced to postpone the calls of nature, or defer them till the night, finding it easier to return the tumors whilst he is in a horizontal position, in which he also experiences more speedy relief from pain. In many many cases, when the tumors are large and numerous, and have been subject to prolapse for a length of time, the sphincter and tissues of the anus lose their tone, are much relaxed, and the patient is subject to constant annoyance by their protrusion whenever he attempts to walk, or even by riding in a carriage: nor is the prolapsus in this stage confined to the tumor alone, for the bowel, having lost its support, the pouch of the rectum is easily dragged down by the morbid growths, and by the expulsive efforts at stool."

Hemorrhage is one of the most frequent of the accessory phenomena of internal piles, and at times the most prominent symptom, and, when excessive, is also the most alarming, from the serious effects thereby occasioned: it usually takes place during the evacuation of the contents of the bowel, occurring after the passage of the fœces, but sometimes preceding them. It is mostly of an active character, but may become passive by the vessels being debilitated, and the blood attenuated, as

a consequence of the profuseness of the hemorrhagic discharge. The color of the blood evacuated is bright vermilion, and is exuded by the capillary vessels of the mucous membrane of the tumors or excrescences constituting the piles: this will be very evident on examination when they are prolapsed. In other cases the blood will be projected in fine streams, as if from minute vessels or dilated pores; but we are not able to detect these after the hemorrhage ceases."

"The sufferings and inconvenience to a patient affected with internal piles are often greatly increased by their protruding external to the anus. When the tumors are situated immediately within the rectum, they are subject to prolapsus in an earlier stage of the disease, owing to the eversion of the lower part of the mucous membrane, which occurs at the time of emptying the bowels, and to the fæces thrusting the tumors before them; when situated higher up in the intestine, they do not descend at so early a period, but, by the pressure and elongation they are subject to from the passage of the fæces, they at length protrude externally. At first the piles are retracted within the anus by muscular action alone after the bowels have been relieved; but in process of time this no longer occurs, and it becomes necessary to return them. Another source of distress from the prolapsus of piles, is their liability to strangulation, either by the spasmodic contraction of the sphincter, or by sanguineous engorgement: under these circumstances, the assistance of a surgeon will be required to effect the replacement of the extruded parts. If the patient delays seeking the necessary aid, mortification takes place, endangering his life should the constitution be impaired by any cause, or the vital powers be naturally feeble; if the contrary condition exists and the general health be good, the tumors will slough off, and a cure will thus be effected, but at the expense of much suffering."

"Any impediment offered to the return of the blood from the lower bowel will cause hemorrhoids. It will arise from two causes, the one being mechanical in its immediate effect, the other pathological, and depending on disease and alteration of structure in some of the internal organs. Those causes

which act mechanically are the pregnant uterus, and other tumors developed in the pelvis or abdomen, which, by pressure on the large venous trunks, impede the ascent of the blood; tight lacing and cinctures also have the same effect. The pathological causes are congestion and structural diseases of the liver, pancreas, and spleen; diseases of the lungs, heart, and large bloodvessels, interfering with the free circulation of the blood.

"Hemorrhoids are frequently a concomitant of pregnancy, and in this state are of the accidental or occasional form, being induced by the gravid uterus pressing on the venous trunks, and by the general plethora which exists at this period.

"Constipation is one of the most frequent and common causes of hemorrhoids which we meet with: it tends to induce the disease in several way; thus, when the fæces are retained, they become indurated and impacted, and produce irritation of the mucous membrane, and consequent afflux of blood to the rectum; by accumulation they distend the intestine, and, pressing on the veins, interfere more or less with the return of the blood. In this habit of body the hemorrhoidal vessels become greatly engorged during the act of defecation, from the violent efforts of the expulsatory muscles, and the congestion, arising during the temporary suspended respiration that always attends violent muscular action.

"Those persons whose habits of life are sedentary, are very generally the subject of piles, more especially if they indulge freely at table. By inactivity of body, the functions of the several emunctory organs are diminished, and, not the least important, that of the skin, which, when properly performed, frees the system of the effects of the effete tissues, which, if retained, have a most pernicious effect on the animal economy generally. From deficiency of exercise the function of the liver is lessened, and congestion is very liable to occur. Constipation, and its effects, as a result of this mode of life, is nearly always present. The sitting position maintained by persons of the habits under consideration, determines the blood to the hemorrhoidal vessels. From these circumstances it is very common to meet with hemorrhoidal diseases among

clergymen, barristers, lawyers, those confined to the counting house, and among the working classes, the nature of whose occupations compels them to sit many hours, as dressmakers, tailors, shoemakers, and others. It is very common for individuals thus circumstanced to have the hemorrhoidal discharge occurring in a regular manner, and, when moderato in quantity, having rather a beneficial effect than otherwise, and possibly saving them from some more serious malady.

"Sometimes the hemorrhoidal flux will appear as a translation of hemorrhagic discharge from some other organ; thus arresting and keeping in abeyance morbid action that has given rise to hemoptysis, hematemesis, epistaxis, &c. Bushe mentions several instances in which this occurred, and records two cases: the one of a gentleman from Ireland, who had hemoptysis, which ceased on his being attacked with hemorrhoids, and he enjoyed good health: resorting to Paris, and being annoyed by the piles, he had them removed by Baron Dupuytren; after that he returned to America, and labored under a determination of blood to the head, of this he was relieved by leeches to the anus, and by the administration of aloes and blue pill. The other case is that of a gentleman subject to epistaxis, and who suffered from a series of cerebral symptoms, consequent on its suppression. Dr. Bushe, being consulted, prescribed stimulating pediluvia and brisk purgatives. On the patient feeling a desire to defecate, he discharged about a pint of blood per anum, to the immediate relief of the head symptoms; a regular hemorrhoidal flux continuing, he had no return of the epistaxis, or of any of the unpleasant circumstances attending its suppression.

"Mental emotions and passions, both exciting and depressing, are causes of hemorrhoids: thus anger, fear, sorrow, ennui, &c., excite a remarkable and vital action of the ganglionic nerves of the abdomen, manifested by a sense of sinking, weight, constriction and pain at the epigastrium. The result of this impression is extended to the surface of the body; the cutaneous vessels contract, inducing pallor, and the blood, driven from the surface, accumulates in the internal

organs, producing various functional disorders of the stomach, derangement of the liver, jaundice, darrhœa, or hemorrhagic discharge from the rectum.

"Internal irritation from a variety of sources will produce these affections. Ascarides, which infest the lower portion of the alimentary canal, are not an infrequent cause; irritation arising from diarrhœa and dysentery will excite the hemorrhoidal discharge, and we shall observe it unfrequently as a crisis in other diseases: thus it occurs in fevers, particularly bilious and gastric fevers; also when inflammation has attacked the brain or any of the organs longed in the thoracic and abdominal cavities; and in other conditions of the system, as hypochondriasis, &c.

"Diseases of contiguous organs, by inducing an afflux of blood to the pelvic viscera, and by extension of inflammation and irritation, are common causes of hemorrhoids; we observe them accompanying disease of the prostrate gland; occurring as a consequence of stone in the bladder; the effect of stricture of the urethra, consequent on the vascular turgescence and violent straining in micturition, attendant on the aggravated forms of the latter affection.

"Excessive venery and masturbation, by producing relaxation of the system, and by determining the blood to the organs in the pelvis, produce hemorrhoidal disease.

"Certain purgatives and drastic medicines, as aloes, scammony, gamboge, black hellebore, rhubarb, the neutral salts, &c., particularly if prescribed in too frequent and too large doses, induce hemorrhoids: they act directly by irritating the mucous membrane of the rectum, and by inordinately exciting that portion of the intestine, and the lower part of the colon. Of all medicines, calomel and the other preparations of mercury have have been productive of most mischief in the affections we are now considering, as well as inducing other diseases of the digestive organs. It is not from the use of the mineral, but its general abuse, that the evil arises: the practice is justly reprobated by Drs. Copland, Elliotson, and other writers on the practice of medicine. It may, however, be questioned whether all the medicines first mentioned, when

properly administered, exert much influence inducing the disease, and whether it is not rather to the state of the constitution rendering these medicines necessary that we should ascribe the local affections. They will severally readily reproduce the hemorrhoidal flux when once it has taken place, but it is not to iaferred from this that they will cause the disease, as morbid action having once occurred in a part is much more easily re-established even by slighter causes; therefore, before attributing the malady to medicines, it is essential to ascertain if there may not be other causes to which it may owe its origin."

"The most important distinction we have to consider, both in the prognosis and with regard to treatment, is the source of hemorrhage, which may be intestinal, and not the result of piles. But here a little consideration will prevent error: intestinal hemorrhage is generally a result of acute and dangerous visceral disease, and the constitutional disturbance attending it will be severe, and of marked character: it more frequently accompanies the advanced stages of malignant fevers and general cachexia. The state of the blood discharged will enable us to form a tolerably correct opinion whether it be from piles or not; when it occurs from any portion of the intertinal canal above that which is the seat of hemorrhoids it will be clotted, very dark, and mixed with the fæces and excretions, and will be passed at stool without any of the distress attending piles; nor shall we be able to detect by digital examination per anum any form of tumors or varicose state of vessels. But, on the contrary, if the hemorrhage be from piles, the blood will either precede or follow defecation, will florid in color, and fluid, with all the characters of being recently extravasated. There will also be the local symptoms attending these affections, as weight and fulness in the rectum, pain, and others which have been previously mentioned: these will be aggravated at stool; besides, examination will reveal the presence of one or more tumors, or other lesions.

"Before commencing the treatment, it is most important that a careful and minute examination of the rectum and anus should be made when a patient complains of any of the symptoms of

hemorrhoidal disease: firstly, that we may arrive at a correct knowledge of the peculiar kind of tumor, and the condition of the parts, also or not of any complication; and, secondly, because the accounts given by patients themselves are frequently inaccurate, and they are too apt to dwell on any one or more of the symptoms that may be most distressing to them.

"In making an examination in the male, the patient should be directed either to lean over the back of a chair, or to lie upon a sofa on his side, with the nates projecting over the edge, and the knees drawn up; the latter position of preferable, and should always be adopted with female patients. The parts when inflamed being acutely painful, all possible gentleness must be observed, particularly if fissure of the anus exist as a complication, as slight irritation will often induce excrutiating agony. Previous to making a digital examination of the interior of the bowel, the cavity of the nail should be filled with soap, which will prevent its scratching the intestine, and the finger must be dipped in oil to facilitate its introduction; lard and unguents do not answer so well as they interfere slightly with the delicacy of the sense of the touch.

"Having become acquainted with the abnormal condition of the parts, the next consideration is, whether the hemorrhoidal affections are of a constitutional or accidental origin: it is on arriving at a just conclusion on this point that the principles of treatment must be based, and on it our success must depend. When piles have existed for a long period, have continued from youth, or the commencement of puberty, when they supervene upon or replace some serious organic or habitual affection, if they are preceded by constitutional disturbance, and succeeded by an improvement in the state of the health, if well marked indications of plethora exist, which is relieved by the accession of the hemorrhoidal flux, and if indications of congestion, or disease in any of the organs accompany or follow its suppression or interruption, or an hereditary predisposition exists, a constitutional nature may be inferred; and local treatment must be a secondary consid-

eration, and not adopted till the constitutional cause has been removed or palliated: this is especially necessary if there is a predisposition, hereditary or otherwise, to apoplexy, gout, phthisis, hemoptysis, expistaxis, or other kinds of hemorrhage.

"Various authors mention instances in which a neglect of the consideration ot the constitutional origin, and the adoption of a local treatment of piles, has been followed by serious or fatal consequences Dr. Copland mentions three cases having come under his observation, in one of which fever was induced, in another apoplexy, and in a third melancholia, by the improper arrest of hemorrhoidal discharge. Mr. Howship states the case of a gentleman subject to gout, who, in opposition to proper medical advice, was induced by a charlatan to have recourse to a strong vitriolic lotion, withe the effect of arresting the hemorrhagic discharge, but the patient soon after died of gout in the stomach.

"The general treatment of hemorrhoidal affections must consist in enforcing a strict observance of moderation in diet, due attention being paid both to the quality and nature of the aliment, as well as quantity; all stimulating food and beverarges must be forbidden, and only that allowed which is unirritating and easy of digestion: this is a matter so important, not only in the diseases herein treated of, but in all others, that it would be well to give a patient written instructions on this point, in the same manner as when medicines are directed to be taken. The bowels must be regulated, and constipation combatted, by deobstruent laxatives and stomachic aperients. If fæcal accumulation in the colon exist, these must be removed by emollient enemata: in many cases the use of O'Beirne's tube will be highly serviceable in dislodging the excrementitious matter. When the secretions and excretions of the chylopoietic viscera are depraved or deficient, means must be adopted to restore them to a healthy state; for this purpose a few grains of the blue pill with one of powdered ipecacuanha should be directed to be taken at bed time, or mercury with chalk and extract of taraxacum may be substi-

tuted; and in the morning one of the following drafts should be taken:

℞ Infusi Senuæ comp., ʒ vj;
Infusi Gentianæ comp., ʒ v;
Tincturæ Cardamomi comp., ʒ j.
Fiat haustus.

℞ Decocti Cinchonæ, Infusi Senna comp., āā ʒ jv,
Fiat haustus.

"If these are not sufficiently active, sulphate of magnesia, potassio-tartrate of soda, or sulphate of potash may be added; castor oil is a most useful laxative in these disease: a teaspoonful of the following electuary, taken either at bed time or early in the morning, answers very well in moving the bowels once or twice:

℞ Confectionis Sennæ, Sulphuris Loti, āā ℥ j;
Pulveris Jalapæ, ʒ j;
Pulveris Zingiberis, ʒ ss;
Sodæ Potassio-tartratis, ʒ iv;
Syrupi Zingiberis, q. s.
Ut. fiat electuarium."

"When the tumors are inflamed, local depletion will generally be necessary; for the reason just urged, cupping will be more advisable than the application of leeches. If the piles are internal, and are prolapsed, they must be returned within the sphincter by gentle pressure, made by a fold of lint smeared with olive oil or spermaceti ointment; this must not be neglected, or, from vascular engorgement or constriction by the surrounding muscular fibres, mortification will probably result, occasioning severe constitutional disturbance and much suffering. Several instances of the disease being thus removed, have come under my observation. In this manner the celebrated Horne Tooke was cured of a disease he had long suffered from. Sir Benjamin Brodie, in his lectures, narrates the circumstance: "Many years ago I was dining with Dr. Pearson, and after dinner he gave an account of Horne Tooke's illness. He said that he had long labored under piles; that at last mortification had taken place; that

there was no chance of his recovery; and he added, that he had that morning seen him for the last time. I remember that in the middle of this history there came a knock at the door, on which Dr. Pearson said, "Here is a messenger with an account of my poor friend's death.' However, it was some message; but by-and-by a messenger did arrive, saying that Horne Tooke was much the same, or a little better. It turned out, as I have been informed, that the piles sloughed off, and from this time he never had any bad symptom. In fact, he was, if I have been rightly informed, cured of a disease which had been the misery of his life for many years preceding, and he lived for some years afterwards."

"After the tumors have been replaced, hot poppy-head fomentations should be applied, to be succeeded by hot linseed-meal poultices. Some surgeons have advised punctures and scarifications of the inflamed and protruded piles; it is a practice that should not be adopted, being founded on erroneous principles, and will only cause the patient much annoyance, without affording the desired relief. Mr. Calvert says he saw a case of fatal hemorrhage follow the practice. Montegre and Bushe alike condemn the proceeding. After the inflammation has somewhat abated, cooling and anodyne lotions will afford great relief; an aqueous solution of opium with acetate of lead and elder flower water or rose water will answer the purpose. Enemata of cold water are beneficial in the latter stage of inflammation; the instrument used should be provided with an elastic gum jet, as one of ivory or metal will be likely to injure the tender parts. The bowels must be kept gently open by means of an aperient electuary, castor oil or other laxative."

"So long as hemorrhage appears beneficial in relieving any organ threatened with disease, it must not be arrested, but any error in the constitution or habits of the patient that tends to maintain or increase it should be corrected. When the loss of blood is frequent or large in quantity, and the patient thereby rendered weak and pale, and the irritability of the system increased, measures must be taken to moderate the flow, or to stop it entirely. In the first place, the bowels

must be regulated so as to act gently every day; for this purpose, the lenitive electuary with sulphur, or sulphate of magnesia, and dilute sulphuric acid in a bitter infusion, or in an infusion of roses, may be taken early in the morning, and a teaspoonful of the confection of black pepper or Ward's paste, should be taken two or three times a day. The injection into the rectum, morning and evening, of four or six ounces of cold water, will be highly beneficial from its sedative and astringent effects. If the patient leads a sedentary life, he must take exercise daily in the open air, by which the secretions will be increased, and the circulation equalized. The food must be moderate in quantity, unstimulating in quality and taken at regular and stated intervals."

"Tumors occurring at the verge of the anus, forming external hemorrhoids, require different treatment from those which are internal to the sphincter. In the acute stage of external piles, when they are small, hot fomentations, poultices, and the medical treatment already advised, will generally succeed in relieving the symptoms; but if they be large and tense, much time and pain will be saved to the patient by making a free incision through them and evacuating the contained blood. The incision should be made with a small curved bistoury in the direction from the circumference towards the centre of the anus; immediate relief will follow, and the very slight bleeding that takes place, which is rather beneficial than otherwise, is never sufficient to cause either the patient or the sugeon any anxiety; the wound will heal by granulation, the skin contracts, and the parts are restored to their normal condition in a few days. But if this proceeding be neglected, permanent tumors will be formed in the manner previously described.

"When these exist, they should be excised, and it is the only advisable plan of treatment; if the error be committed applying ligatures to these as to internal piles, intense suffering will result, a striking example of which I witnessed in a case sometimes since. Care should be taken not to remove more of the integument than covers the tumor, or upon cicatrization of the wounds, contraction of the anus will ensue,

the serious consequences of which have been referred to in Chapter IV. The usual mode of excision is by means of a pair of curved scissors: the pile, being seized with a vulsellum or pair of forceps, is to be cut off with the scissors, the incisions radiating from the circumference towards the centre of the anus. A less painful mode of removing these tumors is by a probe-pointed straight bistoury: when the tumors are large and much indurated, they slip before the edge of the scissors, rendering a second or third cut necessary; besides, a certain amount of bruising of the tissues occurs in this manner of operating, and occasions great pain unless the patient is under the influence of chloroform. In using the knife, the incisions can be made with a greater degree of exactness: each tumor is to be held with the forceps and incised at its base, the lower half of the incision being made first, that the blood may not interfere with our view. If the hemorrhoid be small it can be cut off with one stroke of the knife, but if large the preceding plan is better, as the removal of more of the integument than is necessary can be thus avoided. Should fissure of the anus coexist, it will generally heal after the excision of the tumors: slightly stimulating lotions and ointments will sometimes be advisable till the cure is complete.

"In the majority of cases it will not be necessary to interfere surgically with internal piles, if the treatment already described be steadily pursued, and the patient strictly attends to the injunctions of his medical adviser with respect to diet and exercise. Even when the tumors are large, and have existed for some time, the use of soap and water externally, night and morning, the injection of cold water or lime water after each dejection, and keeping the bowels easy, will enable the subjects of them to pass their lives in tolerable comfort. But when, notwithstanding the adoption of these means, the tumors continue affected with pain, wearing out the strength of the patient, or bleeding occurs to such an extent as to affect the constitution, producing the various symptoms that have been described, or that the tumors are constantly protruded and a profuse mucous discharge kept up, it will be advisable to remove them by surgical operation. I may be permitted

to repeat that it is only when the constitution suffers from the local disease we are to remove it: and we must be careful not to do so when that disease appears beneficial in warding off those of the more important organs of the chest, head, and abdomen, which, if aggravated, might terminate fatally."

"From what has been stated, it is quite evident that excision of internal hemorrhoids is neither safe nor advisable, and that other means must be had recourse to. When the tumors are large, no plan for their removal is so effectual as the ligature, which, if properly applied, occasions but little pain, and the operation does not occupy more than a few minutes. From extensive practical experience, I can amply testify that this method is entirely free from the evil consequences mentioned by some writers, provided the necessary precautions previously pointed out have been attended to. In this belief I am supported by the evidence of gentlemen whose eminent position in the profession has afforded them a wide field for observation and practice, and whose opinions command the highest respect. In a recent consultation with Sir Benjamin Brodie, respecting a patient who was suffering from piles, complicated with prolapsus, he remarked, "The ligature is a perfectly safe proceeding." He added he had lost three patients after the operation; but two of them had albuminuria, and occurred before he had become acquainted with the pathology and important alterations in structure of the kidneys inducing that state of the urine, which the valuable researches of Dr. Bright and subsequent investigators have, since then, so ably and clearly demonstrated. In the third case, Sir Benjamin at first refused to interfere, on account of the patient's broken-down constitution, and it was only at his most urgent request, and after all the unfavorable circumstances had been pointed out to him, that he consented to perform the operation. That other fatal results have ensued upon the application of the ligature is admitted; but in these cases it will also be found the general health of the patient, or the presence of serious disease of the kidneys or other important organs, rendered the operation unadvisable. It is such cases that are

adduced as militating against the practice of applying the ligature, by those who put forth some peculiar but generally not very original plan of treatment."

We have given the above copious extracts as well on account of their general correctness, as to enable the reader to judge of the value of the work.

There are, indeed, a number of points in which our own practice does not conform to the views herein expressed. For example, we regard the application of cups as positively injurious in inflamed piles. When discharges have been suppressed, or have suddenly ceased, and dangerous symptoms have supervened, the application of cups near the verge of the anus is the very best method of reproducing the discharge.

Among the most frequent causes of this affection, we have noticed the abuse of aloetics, and the use of bran in bread; and we regard the use of fruits and oleaginous substances as olive oil or bean flour, as the best articles of diet for the relief of habitual costiveness. It seems doubtful if the application of nitric acid or any similar escharotic is often admissable.

☞ We have received from the publishers, Lindsay & Blakestone's Physicians' Visiting List, Diary, and Book of Engagements, and also the Physician's Hand Book of Practice, by Wm. Elmer, M. D.; published by W. A. Townsend & Co.; both for the year 1861. To those practicing physicians who have once made use of this little pocket memorandum, nothing need be said of its convenience, for to such it has made itself indispensable. They are neatly bound, with tucks, and have smooth covers, which gives a good surface upon which to write, an advantage that has sometimes been sacrificed to ornament. The visiting List is for sale by S. C. Griggs & Co., at from 75 cents to $1 per copy, according to size and quality. Dr. Elmer's book is for sale by Wm. B.

Keen, for $1.25 per copy. It contains a list of diseases and their symptoms, a list of incompatibles, extemporaneous prescriptions, poisons and their antidotes, &c., &c.

Physicians from a distance, by remitting the amount indicated to either of the above houses, will receive a copy by mail, postage free.

☞ The interesting article in the present number of the *Journal*, on Spina Bifida, is from the pen of John Low, M. D., of McGregor, Iowa, the name of the author was not appended to the manuscript, and the form was in print before the omission was supplied from the letter accompanying it.

Miscellaneous.

EXTRACTS FROM AN ESSAY ON DIPTHERIA AND DIPHTHERITIC AFFECTIONS.

BY A. JACOBI, M. D.

What is diphtheria?

Diphtheria, or diphtherite, is, in its broadest sense, and from a merely anatomical point of view, a morbid condition recognizable by the exudation of fibrinous pseudo-membranes. They generally coincide with pernicious forms of inflammation, and are, in the majority of cases, exuded after a catarrh has preceded. The pseudo-membraneous exudation consists of fibrine, and is generally accompanied by serous secretion in its neighborhood, and hyperæmia and swelling of the sur-

rounding parts. The microscope shows it to be an amorphous and homogenous mass, usually interspersed with imbedded epithelial cells, and by multiform, sometimes spherical, sometimes angular, corpuscles of mucous. The exudation is tough and elastic, or soft and pulpy, or friable, sometimes very apt to macerate, and very much like a serous liquid. It is usually membranous, expanded over a plain surface, sometimes extending into the subjacent tissue, and in some few cases forming hard lumps, of irregular shape, of a fibrinous mass imbedded in the organic tissue. Its composition is proved to be fibrinous by chemical tests. In this respect it is like the plastic exudation into the bronchi and lung cells observed in pneumonia, where fibrinous coagulations are sometimes expectorated together with bronchial mucous.

The pseudo membranes differ in size, thickness and color, as well as in consistency. Their shape is very multiform; some are round, some angular, some regular, some irregular; their thickness varies from a transparent thinness to a quarter of an inch and more; their color is white, glassy, greenish, grey, yellowish, reddish, brown, according to their thickness, exposure to the air, and admixture of blood; sometimes unaltered blood adhering to its lower surface. They are either merely adherent to a mucous membrane, without any alteration of its tissue; such is usually the case on the mucous membrane of the bronchi and trachea, and mostly on the vellum palati. Or they are imbedded in its substance, as mostly on the tonsils and the posterior wall of the pharynx, and frequently in the larynx. It is also a very remarkable fact, that the same continuous membrane will arternately be readily removed from the surface of the mucous membrane, and again at a very distance tear the substance of the mucous membrane at every attempt at separating it. The surrounding parts are hyperæmic, and swelled by œdema during life; at post mortem examinations the œdematus swelling is sometimes found, but the hyperæmia is no longer met with after the refrigerating and contracting influence of the atmosphere has had time to operate. Pseudo-membranes are found in the pharynx, on tonsils, uvula, and vellum, on the gum, lips, and tongue, on the mucous membrane of the mouth and nose, in the larynx, trachea, and and bronchi, in the superior part of the œsophagus, in the lower part of the intestinal canal, round the anus, in the vagina, the external ear, the nasolachrymal duct, on the conjunctiva, and on the cutis wherever and by whatever cause it has been deprived of its surface; sore nipples, etc. In all these places the chemical as well as

the microscopical constitution of the the membranous exudation is entirely the same.

It is a remarkable fact that the majority of inflammatory processes attended with membranous exudation take place in the pharynx; cases of both sporadic and epidemic pharyngeal diphtherite will sometimes be accompanied with diphtheritic processes of other parts; but diphtherite of the external ear, or vagina, will but seldom be heard of without being accompanied with pharyngeal diphtherite. The few cases of this kind observed by us we count among exceptional curiosities. Next to pharyngeal diphtherite, in frequency, comes the mucous membrane of the respiratory organs, especially of the larynx and trachea, and nostrils. Sometimes the exudative process will either extend from one part to the adjoining one, or will merely wander; sunden transmission to distant regions, or contemporaneous affection of distant parts, being usually not observed, except in epidemics of diptheritic affections. To point we shall return at some future occasion.

We have stated that the majority of diphtherites are met with in the throat. Thus it occurs that the term of diphtherite is usually applied and attributed to the peculiar process of exudation in the fauces; so much so, that we generally have forgotten that dysentery, croup, etc., consist in, and show, the same anatomical lesions as diphtheritic sore throat; the difference of accidental symptoms and our tendency to classification either preventing our perceiving or acknowleding the equality in what simulates differences. Certainly, the same physiological or pathological process, in different organs, ought to be understood to offer a series of different symptoms.

Our past epidemic has again proved that diphtherite is, in almost all cases, confined to, or originates in, the throat. Thus, diphtherite and diphtheritic sore throat are almost, as it were, identical terms. At all events, the presence of membranes in the throat may be taken as the ordinary occurence; and in the following symptomatology we speak particular regard to this usual form of diphtheria.

A child shows symtoms of moderate fever; pulse accelerated, perhaps a little small; face somewhat flushed, submaxillary region a little swelled to both sight and touch; more or less headache is complained of, swallowing has been interfered with some days; tongue has a soft, creamy-whitish, or whitish-grey or yellow fur, diminishing in thickness towards the lateral, and particularly the anterior region, where the papillæ appear a little enlarged and higher colored. One or

both tonsils, or the posterior wall of the pharynx, the velum, uvula, or some of the enumerated parts at the same time, are covered with a membrane as described above. The surrounding mucous membrane looks red, livid, is hyperæmic, and shows œdematous swelling. The submaxillary and cervical glands are a little swollen. The breath of such patients has generally a bad smell, although the membrane does nor extend very far; at all events, some smell will be perceived as soon as the membrane begins to macerate or fall off; especially is this the case when the throat is not kept clean. Such are the average of mild cases, and the great majority of all those which come under observation in the onset of an epidemic. They will get well in five, six or eight days; some spontaneously, some after appropriate treatment. The membrane will be removed as a whole, and leave the mucous membrane underneath smooth, livid; or it will macerate, fall off in pieces, or be removed as a half-serous liquid, and leave the mucous membrane, especially of the tonsils, with a ragged appearance and superficial ulcerations. At the same time, the submaxillary and cervical glands will return to their normal size.

A number of cases occurred during the epidemic, in which all the symptoms were present, with the exception of the formation of the membrane; there were some amongst them in which the symptoms of fever and adenitis, and even a general adynamic condition, were well pronounced. In such cases never thought of putting the case down as diphtheria, but recorded it as pharyngitis, amygdalitis, or stomatitis: a number of cases which we, according to the severity of symptoms, supposed to be of a diphthetic nature, we put down as diphtherite pharyngitis, or diphtheritic fever; the former name being selected for such cases in which the symptoms of pharyngitis prevailed, the latter for such as showed fever as their foremost symptom. We were seldom mistaken, as in a day or two membranes would generally present themselves.

There is a form of the diphtheritic process, in which very little or no fever is perceived, and little or no glandular swelling will take place. The congestion and swelling of the pharynx is not very remarkable, and the first remarkable appearance is noticed on the follicles of the mucous membrane of the pharynx: they are visible as whitish grey spots of a twentieth or twelfth of an inch in diameter. Not long after, however, membranes are formed, and the whole process will run its course in sometimes three or four days, without any great

inconvenience to the patient. But there are cases in which the symptoms will increase in severity, fever will set in, and submaxillary and cervical adenitis take place. Such cases have been separated by some authors as "common membranous angina," as "herpes of the throat," as "herpetic angina." We do not see anything else in these cases but light diphtherite, mostly without well pronounced general symptoms. We have not found any more reason to distinguish this form, of which, however, we have not seen more than a dozen of cases from diphtheria, than we should think of excluding a case of scarlatina, without fever, and with less than usual eruption, from the record of cases of scarlatina. Moreover, we have pointed to the fact that such apparently simple cases will sometimes be followed by fever and adenitis; and when we further add that some of these light cases of "herpetic angina" have been followed by diphtheritic paralysis, we ought to lay aside our fondness for classification and subdivision; and take nature as a whole, the different pathological conditions of the diphtheritic process are variable in their appearance, but alike in their innermost nature.

The local process of exudation is not confined to a certain limit. Membranes will be found on the posterior wall of the velum, and in the posterior nares, blocking up the nostrils and extending as far down as the lips. In such cases small children, who are mostly used to breathe through the nose, suffer much from dyspnœa. These membranes will be removed in the course of time, and with the same consequences as those of the pharynx itself. To one peculiarity, however, we wish to direct the attention of our readers. We have once seen, in consultation, a little girl of five years, in the upper part of the city, with extensive membranes of the pharynx, velum, e , but were struck with the fact that long cylindrical tubes of false membrane were brought up. These cylinders could come from the trachea only; how was it that the child was not suffering all the time from the utmost dyspnœa, but felt proportionately not bad and gave, in its general appearance, a good prognosis? We learned from our friend Dr. S., who was then suffering from extensive diphtheria himself, that he, too, had brought up cylindrical tubes of membranes like those thrown off in children suffering from laryngeal and tracheal diphtherite, but that in his case they came from the posterior nares. We desire to state this fact, supposing that some professional man might in some case have the same difficulty in explaining the occurrence of cylindrical tubes of membrane that do not come from the respiratory organs.

In other cases the exudation of pseudo-membrane will extend downwards instead of upwards, and will then constitute what is generally called croup. The diagnosis of this descending croup is difficult in one respect only, viz: The œdematous swelling surrounding the membranous exudation will sometimes produce croupous cough and dyspnœa, etc., before the membrane has reached the larynx, by œdema of the epiglottis or glottis, or general laryngeal catarrh. As a general thing, there is not much practical difference, for in the majority of such cases the process is of such rapidity, that we need not wait long for real membranous exudation. At all events, the symptoms of this descending croup of the diphtheritic process are the same as are known in genuine or sporadic croup; and therefore, after we have learned besides, that the anatomical elements and constitution in diphtheritic membranes of the pharynx and larynx are the same, we have a right to say that there is no real anatomical difference between "diphtheritic" and "genuine" croup. We need not return to the consideration of the former assumption of a difference between croupous and diphtheritic membranes. It does not exist. Croupous membranes were those which were stretched over the mucous membrane, while the name of diphtheritic membranes was given to such as would be imbedded in the membrane and leave ulcerations, or loss of substance, when removed. There is no such difference.

There have certainly been cases of croup, genuine croup, differing widely from each other, in the experience of every one of our readers. The differences are either of an individual or of a general nature. The former do not interest us here, the latter do. Genuine croup is apt to cause death either by suffocation, or by poisoning with carbonic acid; and diphtheritic croup may show a third and fourth cause of death, viz: exhaustion, and diphtheritic poisoning. And it is here that we wish to add some remarks on the true nature of diphtheria, as shown by observation and rational conclusions.

Diphtheria is a general disease; it has local deposits, it is true, but in the same manner that scarlatina will localize itself on the skin, mucous membrane of the Bellinian canals, etc., measles on the skin, mucous membrane of the respiratory organs, etc., or typhoid fever on the mucous membrane of the intestinal tract, etc. Thus diphtheria will, being eminently a constitutional disease, localize itself on the mucous membranes and denuded skin in general, and on the mucous membrane of the pharynx and larynx in particular. Therefore, the danger of the disease depends by no means on the exten-

sion or thickness of the exudation, sometimes a very small amount of exudation taking place in extremely dangerous cases. Some cases have set in with an exceedingly high fever; with vomiting, which so generally is a symptom of sudden and general affection of the system; with convulsions, like those observed at the outbreak of acute exanthems, and with rapid collapse not at all explained by any of the visible symptoms.

Although not all the fatal cases ran their course with this entire absence of positive symptoms, terminating in death, as it were, without disease, a great number of cases have come under my observation, in which the local exudations were by no means in proportion to the general symptoms, and to the character of the attack. Excessive fever, with a pulse of 140, 150, 160, like that in scarlet fever, but generally of a more adynamic character, and large swellings of the submaxillary and cervical glands have, in a large number of cases, been observed to precede the exudation of fibrinous membrane for three, four, even five days. Then, at last, membranes would make their appearance, and either cover, in some instances, the pharyngeal mucous membrane and the adjoining parts to a large extent, or, in most cases, remain for a time of moderate size. Such cases are never without danger; the adynamic character of the disease, combined with the intrinsic danger of a fever like that described, being fully able to produce death from exhaustion in a very short time indeed. Such have been those cases also in which a septic character would develop itself. Instead of being removed as a whole, or in pieces, the membranes would decay, macerate, or flow off, with the serous secretion of the adjoining mucous membranes, as a thin, sanious matter, of watery color, and excessively foul smell, and would exulcerate every healthy part it came in contact with. Ulcerations, on the original seat of the membranes, or such as were successively formed on neighboring localities by contact with the sanious, foul secretion, would again prove the seat of new secretion and stench, and sometimes require many weeks, even months, in such individuals who suffered most from anæmia and exhaustion, to perfectly heal. We will here refer particularly to those cases of which a large number have been observed. In a family where diphtheria was just reaping its harvest, or in the neighborhood, children would fall sick with all the initial symptoms of diphtheria, excessive fever, exhaustion, pharyngitis, and adenitis, but no membranes would appear. The whole would take a course like that of diphtheria, and the patients

require a long time to recover. Such cases we have always put down as diphtheritic fever. We feel sure, however, that they were entitled to be named diphtheria like those in which membranes were formed. Similar cases will occur in other epidemics, where part of the symptoms only will be fully developed, without, however, losing their general character; there is a great difference, too, among cases of scarlatina in every epidemic, according to individual nature, accompanying circumstances, and the severity of original infection or contagion. Further, there is a great difference, depending on whether a case of zymotic disease will occur sporadically, or during the height of an epidemic; sporadic cases, and such as occur at the commencement of an epidemic, generally proving to be milder forms. Thus diphtheria, in sporadic cases, or in the beginning of the epidemic, may look like a merely local disease, being, in its nature, a general affection of the system. Diphtheria, with its local exudation into the larynx has, for many decenniums, generally been observed sporadic, and therefore has been taken to be a merely local affection. It has been otherwise in our epidemic. At all events we believe we have shown that pharyngeal as well as laryngeal diphtheria may have the appearance of either a local alteration or a constitutional disease: its true nature being general and constitutional, like scarlet fever, or any of the diseases comprehended under the head of zymotic affections. At this point, finally, we allude to the real meaning of the terms of "diphtherite" and "diphtheria." According to its origin the former means a local, the latter a general affection. If a uniform name was to be given to all the cases occurring, both sporadically and epidemically, it could be that of diphtheria only; but such cases as exhibit more of a local character, might as well be called pharyngeal, laryngeal, cutaneous, etc., diphtherite.

We have a few more words to say on the swelling of the submaxillary and cervical glands. It is a symptom that will be found in almost every case, and never missed in any severe one. It is so certain to be met with, and so little, in many cases, in proportion to the extension of the membranes, and, moreover, so generally keeping pace with the danger of the fever, that we have been taught to consider the amount of glandular swelling accompanying pharyngeal diphtheria, as a highly valuable prognostic symptom. It will often remain after the other symptoms have subsided, but the case must not be considered as perfectly safe, as long as the glandular swelling or induration lasts. Suppuration of the diseased

glands we have met with in very few cases. We consider the glandular swelling as a means of determining the amount of constitutional infection.

The epidemic nature of the disease is an acknowledged fact; consequently we do not wish to carry owls to Athens by repeating what every reader knows. Nor is it necessary to say much on communicability of the disease by endemic influences. For every practioner who has but seen a limited number of cases, has certainly learned, that cases will seldom occur isolated in one locality. Generally, a number of inhabitants of the same room, house, or neighborhood, will be affected at the same time, or in short intervals. Thus hospital wards containing cases of diphtheria, will soon exhibit a number of other cases of the same disease. This fact has been so reported, and is so well known, that this source of infection need not be dwelt upon any longer. But the question arises, whether many cases believed to be the result of the same general endemic influences, exercising their power on every inhabitant alike, have not rather been the consequences of direct contagion. This question of the contagiousness of diphtheria has been the stumbling block of most writers, and, we must confess, of some of the most conscientious ones. For certainly the more scrupulous an author would be, the more he will feel bound to restrict the territory of contagion in all cases that give a chance of being explained by endemic influences alone. For our own part, we at once state our conviction of the contagiousness of diphtheria. We know full well that the proof is not easy. Inoculation has proved either fruitless or improbable; the cases of surgeons related to have been directly affected by diphtheritic patients, admit of other explanations; the vast majority of cases believed to be, and reported as proofs of contagiousness, are really better explained by local endemic influences.

* * * * We do not mean to say that it necessarily must be communicated to everybody coming in contact with a patient—although we have repeatedly observed such members of a family as were most engaged in waiting upon those already affected, to be the next sufferers—just as little as we assert that the like endemic cause existing in a room, or house, or neighborhood, must necessarily strike down every human being under its influence. Nor do we think that no case of diphtheria could originate in any other way except by contagion. But we feel sure, that it partakes of the nature of such epidemic diseases as typhoid fever, or scarlatina, or measles. The failure of experiments is no proof; for when has

the direct experiment on the contagiousness of typhus, scarlatina, and mesles, or on their inoculability, given any satisfactory result? And nevertheless, although there are some who deny contagion by typhoid fever, all three are recognized to be propagated by direct communication from one individual to another. The diphtheritic membranes, moreover, observed to form on the sore nipples of mothers, wet nurses, whose children suffered from diphtheria, appear to be as good a proof that contagion is a cause of diphtheria, as any that could be found in any other disease.

The complications of diphtheria are very numerous. Nothing else can be expected in a disease which is as apt to last a long time as it will generally impair health and nutrition for a protracted period. We do not count coryza, croup, etc., mere localizations of the disease, amongst its complications, nor shall we have anything to say on hemorrhages occurring during its course until we enumerate its final consequences; nor do we feel sure whether we are right in considering pneumonia, with its rapid exudation, as a mere accidental complication; for it is certain that pneumonia will very often occur during the diphtheritic process, and may easily be influenced by the peculiar constitution of the blood giving rise to rapid and copious fibrinous exudation. It is well known to all of our readers that croup will oftentimes be complicated with pneumonia, and even prove fatal not by its own influence, but by the sudden and extensive propagation of the exudative process to the bronchi and lungs. Whichever opinion may be right, it is certain that pneumonia is very frequently met with in company with diphtheria. We have further noticed as complications, of more or less accidental nature, several zymotic diseases, as scarlatina, measles, urticaria, furunculosis, erysipelas, intermittens, and intermittent cephalalgia, varioloid and acute rheumatism; further, general anemia, paralysis, (pre-existing,) rachitis, pulmonary tubercles, eczema of the face, dysuria, stomatitis aphthosa, and ulcerativa, gangrene of the throat and noma; gastric, intestinal and gastro-intestinal catarrh; laryngeal catarrh; dilatation and hypertrophy of the heart; hyperæmia of the brain and meningeal œdema. Many of these complications are very dangerous and frightful indeed. We have attended a young man of nineteen years, residing in Christie street, in whom the pharynx and nostrils were the seat of diphtheritic membranes; adenitis and fever being in the beginning very moderate. The membranes were hard and thick, and proved very obstinate for some weeks, until, in February, the patient was affected with varioloid. From this time

the strength of the patient gave way, the fever rose, appetite disappeared, mucous membranes grew pale, skin very inactive. The usual time of desquamation passed by, but no desquamation took place; the scurfs grew hard and dry, and gave a great deal of pain on being touched; at the same time, they increased in height and diameter, so as to urge upon us the necessity of removing them by force. Beneath each of them the surface was a deep discolored ulcer, secreting a whitish yellow or greenish pale matter from a whitish gray membrane that covered the ground. Thus each varioloid pustule constituted a diphtheritic ulcer, a hundred of which covered the head and face and trunk and extremities of our unfortunate patient. It may suffice to say, that he required several months before the diphtheritic ulcers of his scalp and face got well, and that he has not recovered his former health and strength up to this moment. Now that such complications of two zymotic diseases should occur, is not at all improbable, nor are they very rare. There are many cases in which we should do well to remember that a complication of scarlatina and measles, or of measles and urticaria, form a compound that is sometimes met with in practice, and is very apt to mislead the pratitioner, and to be misconstrued by him. Nor is it an entirely extraordinary occurrence to see an acute exanthema step in before another has fully completed its course. Thus we have the case of a child, on whom we were fully able to diagnosticate, to our entire satisfaction, the presence of scarlatina, urticaria, measles, and finally varioloid, in the course of thirty-two days from the first to the last attack.

Not an unfrequent complication of diphtheria is albuminuria, which may be observed in any stage of the disease. It is not at all true, that albuminuria in diphtheria and in scarlatina shows the difference pointed out by French writers, viz: that albuminaria is a complication of the first stage of diphtheria, and of the later periods of scarlatina; this assumption being equally erroneous in either of the two. About a quarter of all the cases examined for albuminuria gave a positive result as to its presence, and nearly all the post mortem examinations revealed an hyperæmic condition of the kidneys; this being the first cause of, or at least co-existent with, albuminuria. Thus it appears that albuminuria, although found in many cases of no severity, nor sometimes attended with any danger, is a complication of more than average importance.

The etiology of diphtheria shares the fate of that of all the

zymotic diseases of being exceedingly obscure. It is an endemic as well as epidemic disease, and will therefore be found with every constitution, amongst all classes, in either sex, at all ages, in all climates, and at all seasons. But some differences are found that modify our assertion to some extent. The first four or five months of both years, 1859 and 1860, show by far the largest number of cases. In our cases, besides, the male sex was in a slight but decided majority throughout the whole course of the epidemic. Age, too, shows differences similar to those exhibited for scarlatina and measles. The two hundred cases enumerated above are of children under fourteen years of age; the number of diphtheritic cases beyond this age, in the same institution, for the whole time, is from thirty to thirty-five; moreover, the large majority of those two hundred cases occurred in children from two to five years of age, the average age being three years. Cases under a year are not frequent, over nine or ten years proportionately rare. We do not remember to have seen a patient suffering from diphtheria at the age of more than fifty years, but have been told of some few occurring between seventy and eighty. The majority of cases were children with impaired constitution, badly fed, and with bad digestion, anæmic or suffering, or convalescent from another disease that diminished the amount of the solid elements of the blood, and the strength and power of resistance. Among the most unpropitious accompanying or preceding diseases are scarlatina and measles, which generally give a pretty unfavorable prognosis when existing with or followed by diphtheria. Scrofulous individuals, with catarrhal affections of the mucous membranes, of long standing, are particularly subject to being affected, and thus, undoubtedly, poverty, dirt, and a want of care, have a great influence in producing this and other general diseases. Dense population must be accused in many instances, firstly, because of its very co-existence with poverty, want of fresh air, and uncleanliness; and secondly, because of the readiness of communication by direct contagion. But it is nevertheless a fact, that many cases, and many dangerous and fatal ones, occurred in healthy and robust children, wealthy families, good situation, and fresh air.

(Concluded next month.)

BOOK NOTICE.

Dr. Holmes' book was not received in time to notice it in the proper department.

CURRENTS AND COUNTER-CURRENTS IN MEDICAL SCIENCE. By OLIVER WENDELL HOLMES, M. D., Boston; Annual Address before the Massachusetts Medical Society. 1860.

We admit having had our curiosity to see this Address very considerably excited, from the various notices it had received from the secular press. The distinction which Prof. Holmes has attained, outside of the profession, as a poet, wit, satirist, and, to some extent, as a shrewd observer of the ruling ideas of the time in various spheres of thought, prepared us for a graphic, humorous, and occasionally acute, sketch of the present state of the profession—a sort of psychologico-anatomical demonstration, by the fun-loving "Autocrat." We expected beautifully worded eulogy, spiced with keen raillery. We expected generous acknowledgment, acidified to a healthy taste by a strong infusion of wholesome truths. We did not believe that we should find, on its reading, an unmitigated jeremaid against the profession, or wholesale abandonment of its established principles, in favor of any *ism* or *pa.. y* whatever.

We have not been disappointed. Here and there are passages which, isolated from their surrounding, may be effectually quoted by homœopathists and *ismatics* of every and any hue, but taken as a whole, Dr. Holmes, instead of being in the minority, as he seems to think, is with the two-thirds.

We admit that one or two sentences, we in common with the vast majority or scientific physicians, wholly dissent from, but we can cull sentences equally offensive from the writings of scores of medical authors of vastly higher professional standing than the Massachusetts Professor, and yet none of

us dream of sending either of them to professional Coventry. Dr. Holmes is eminently a writer of the "sensation" type. He dearly loves a sharp antithesis, a startling paradox, a striking simile, and sentences which conclude with a proposition which crackles and snaps, or explodes like a Sharp's rifle. He is a kind of Æsculapian Beecher, who never spares friend or foe, so he may fill the pews with attentive hearers. And yet he is equally receptive, and conscious of the stirring thoughts which fill the time. Such men are eminently useful, and we are not among those who denounce active, sincere, working men, because we do not happen to fully coincide with their notions of things. On the contrary we reserve our heaviest batteries of contempt for those who rest content with "the mouldering shams of effect ages," without ever daring to put one foot in advance of the other, even in the clear sunlight of the present condition of Medical Science. The idle men, the changeless men, in these days, must fall into the rear—there is no help for it on the broadside of any parchment, whatever its origin.

We repeat we are willing to be tried by the test of the principles which Dr. Holmes advocates, albeit we protest against a single one or two conclusions which he arrives at, *in toto.* And we say this to the professor: We will wager a bottle of copaiba against an equal amount of hive syrup, that he does not, never has, and never will, practice in accordance with one proposition which he has laid down, and which medical sceptics of every kidney, from the Homœopathists up or down to "Long John," have with greedy gusto snatched up. We shall refer to, and quote it, by-and-by.

The Address commences with a glowing eulogium of deceased members of the Society. And if, as the garbled extracts and comments of outsiders would have us believe Dr. H. means to denounce the profession, the question arises why should he praise the dead for having assiduously done that which the living are still doing? Speaking of those unknown o fame, he says :

"But they have left behind them that loving remembrance which is better than fame, and if their epitaphs are chiselled

briefly in stone, they are written at full length on living tablets, in a thousand homes to which they carried their ever-welcome aid and sympathy."

These are not words to be uttered of charlatans and *guessers*.

The Dr. proceeds to analyze what is called experience, upon which practice is supposed to be based, asserts that "experience must be based on the permanent facts of nature," but suggests the incontrovertible fact that "there is a changeable as well as permanent element in the art of healing," that remedies are often given, and "experience based on some prevalent belief or fashion of the time."

If this is not truth we know of no means of arriving at such a thing. We have no quarrel on hand here.

The speaker next indicates what, in his opinion, is the direction of the main intellectual current of the time, and "some of the eddies which tend to keep the Science of Medicine from moving with it, or even to carry them backwards."

"The two dominant words of our time are *law* and *average*, both pointing to the uniformity of the order of being in which we live."

"In the meantime, the great stronghold of intellectual conservatism, traditional belief, has been assailed by facts which would have been indicted as blasphemy but a few generations ago." "The more positive knowledge we gain, the more we incline to question all that has been received without absolute proof."

"The author characterizes the so-called expectant and heroic systems respectively, as Hippocratic and Themisonic, and asserts that Boston is pre-eminently "the American headquarters of the nature-trusting heresy, provided it be one." (On the contrary we assert that Boston was one of the last places to receive it, as we have occasion to know.) We must extract in full, however, a paragraph which shows conclusively that Dr. H. has "got hold of his pitcher by the right handle:"

"Nay, I will venture to say this, that if every specific were to fail utterly, if the cinchona trees all died out, and the arsenic

mines were exhausted, and the sulphur regions were burned up, if every drug from the vegetable, animal and mineral kingdom were to disappear from the market, a body of enlightened men, organized as a distinct profession, would be required just as much as now, and respected and trusted as now, whose province should be to guard against the causes of disease, to eliminate them if possible when still present, to order all the conditions of the patient so as to favor the efforts of the system to right itself, and to give those predictions of the course of disease which only experience can warrant, and which, in so many cases, relieve the exaggerated fears of sufferers and their friends, or warn them in season of impending danger. Great as the loss would be if certain active remedies could no longer be obtained, it would leave the medical profession the most essential part of its duties, and all, and more than all, its present share of honors; for it would be the death blow to charlatanism, which depends for its success almost entirely on drugs, or at least on a nomenclature that suggests them."

The Art of Medicine, as years ago insisted upon by the writer of the present article, consists but in small part in the the administration of drugs, and the skilled physician will never think that he has done his whole duty when he has written his latin prescription.

Several "inveterate logical errors" are stated, viz:

The mode of inference *per enumerationem simplicem*, in scholastic phrase; that is, counting only favorable cases:

The *post hoc ergo propter hoc* error.

The false induction from genuine facts of observation, leading to the construction of theories which are then deductively applied in the face of the results of direct observation.

And lastly, the "assuming a falsehood as a fast, and giving reasons for it."

"Another portion of the blame rests with the public itself, which insists on being poisoned."

The fanciful and absurd prescriptions of olden time are shown to have their analogues in the present day, especially in the details of homœopathic confectionery.

Then follow several pages in which the witty Professor merely airs his humors and rhetoric, and eventually returns

to sober statement of propositions again, wherein we shall attempt to follow him, and sift out if possible, the real "intent and purpose."

The author reprehends the vague and loose manner in which certain terms are employed, and defines anew as follows:

Nature, in medical language, as opposed to Art, means trust in the reactions of the living system against ordinary normal impressions.

Art, in the same language, as opposed to Nature, means an intentional resort to extraordinary abnormal impressions for the relief of disease.

The reaction of the living system is the essence of both. Food is nothing, if there is no digestive act to respond to it. We cannot raise a blister on a dead man, or hope that carminative forced between his lips will produce its ordinary happy effect.

Disease, dis-ease—disturbed quiet, uncomfortableness, means imperfect or abnormal reaction of the living system, and its more or less permanent results.

Food, in its largest sense, is whatever helps to build up the normal structures, or to maintain their natural actions.

Medicine, in distinction from food, is every unnatural or noxious agent applied for the relief of disease.

Physic means properly the *Natural* art, and Physician is only the Greek synonym of *Naturalist*.

Disease, always an effect, is always in exact proportion to the sum of its causes, and "the one prevalent failing of the Medical Art, is to neglect the causes and quarrel with the effect." In other words, ontology is general in the real doctrines which control practice. Medical men seek to expel diseases by special methods, as though each disease was some evil demon taking possession of the man, as did the devils of olden time.

The author does not believe in the degeneration theory, but believes the descendants may and often do rise to a higher standard of physical well-being than the ancestor.

Then he enunciates the startling apparent paradox:

"Many affections which art has to strive against might be easily shown to be vital to the well-being of society."

"Again, invalidism is the normal state of many organizations."

With his explanation and illustration of his meaning, there seems no objection to the proposition. But the next proposition is of very different character, and unexplained, is capable of exceedingly mischievous application:

"The *presumption* always is that every noxious agent, including medicines proper, which hurts a well man, hurts a sick one."

And germain to the same idea:

"A medicine—that is a noxious agent, like a blister, a seton, an emetic, or a cathartic—should always be presumed to be hurtful. It always is *directly* hurtful; it may sometimes be indirectly beneficial."

In nearly immediate connection follows the sentence which has excited the most professional reprehension, and awakened the highest jubilation of medical quacks and knaves, of all and sundry denominations:

"Throw out opium, which the Creator himself seems to prescribe, for we often see the scarlet poppy growing in the cornfields, as if it were foreseen that wherever there is hunger to be fed there must also be pain to be soothed; throw out a few specifics which our art did not discover, and is hardly needly to apply; throw out wine, which is a food, and the vapors which produce the miracle of anæsthesia, and I firmly believe that if the whole materia medica, *as now used*, could be sunk to the bottom of the sea, it would be the better for mankind—and all the worse for the fishes."

After illustrating his meaning upon this point, Dr. H. draws a contrast between the French and American method of practice, giving preference to the former. We need not delay to remark that even upon his own reasoning the fancied contrast is absurd, and the differences do not depend at all upon the ideas which he defends.

The remainder of the article, so far as medicine is concerned, is purely rhetorical and not argumentative. It is not a little note-worthy that, throughout the whole address, are scattered frequent indignant disclaimers, keen sarcasm, and stringent argument, against the popular folly of the time,

Homœopathy, which the disciples of that manifold imposture are very careful not to quote when they interlard their pages or conversation with choicely garbled tit-bits from the "Autocrat's famous Address." The truth is, the principles which he advocates would wipe out *that system* from existence.

The lesson which he author labors most earnestly to inculcate, is brief and simple. Rely more upon hygiene and scientific regimen, than upon drugs. Analyze experience carefully, and not be misled by fashion, fancy, or bad logic. Never use a medicine without a solidly defensible reason. The medicine which does no good, of necessity does harm. Most of the so-called medicines are unworthy of trust.

Upon the question of how many are in this latter category Dr. H. goes to an extreme which we do not care to follow, but of the essential truth of the proposition, who entertains a doubt?

In treating the sick, the administration of drugs is, we repeat, but a small proportion, and, unfortunately, the earliest part of the physician's duty.

We object utterly to the Professor's assumption that whatever hurts a well man, necessarily is to be presumed hurtful to a sick man. It is totally at variance with his own logic. In sickness the *conditions* are changed, hence causes must operate differently. Will he say that, *e converso*, whatever is beneficial to a well man is beneficial to a sick man?

We dissent wholly from his view that all medicines are directly prejudicial to the body. This is a gross confusion of terms and perversion of language. The *conditions* are the point to be observed. Some medicines may act directly and others indirectly, but the range of operation of the indirectly operating agents is narrow and diminishing. The present defect is one of the *Art* not of the *Science*.

Medicine is not, in the practice of the educated medical man, a system of *guess-work*, as the newspapers charge. It is as positive and reliable as any art can be which depends upon varying conditions and sound judgment. The great mistake has been in claiming too much for it, or attempting too much.

The author of an Introductory Address in the Medical Department of the University of Michigan, in 1853, (a production which, at the time, gave offence to some of the feebler brethren of the profession) indicated, as we still believe, the true doctrine:

"Medicine is to be looked upon and studied precisely as all other arts and sciences are looked upon and studied. The truths upon which it is assumed to be based, are to be tested as all other truths are tested; and when they cannot abide the same, let them be mercilessly discarded. A little diamond is better than a rocky mountain. If the science or art shrink by the process indicated, let it be so! Better is it to be a small but living seed than a rotten trunk, though of colossal magnitude."

We are not among the number of those who believe the address of Dr. Holmes is calculated to do the profession any injury. The sources of danger to our profession are all internal. It is the idlest folly to suppose that external attack of any sort can overcome truth. This production will awaken thought in the medical body, as a rubefacient calls back consciousness and feeling to the insensible patient. The smoke which the *pathies* and the *isms*, with the newspapers generally their ready servitors, contrived to throw around it, has gradually risen from the field, and as one of the watchmen upon the æsculapian towers, we report to the denizens; none dead, none wounded, and none missing! The field is clear for further and continuous effort to place medicine as nearly upon the level of the exact sciences, and positive arts as nature herself will allow. Not even the poetical Breakfast-Table Professor has deserted and gone over to the enemy.

A.

Miscellaneous.

MEDICAL EDUCATION—ITS TENDENCIES.

The opening of the medical schools inaugurates the medical session of the year. No annual event, properly considered, is of equal importance to the republic of medicine. Yet we fear that it too often passes unheeded by our profession, simply because its significance is not appreciated. Let us consider its bearing upon the future of American medicine. The four or five thousands of students who are now gathering in the schools throughout the country, are the recruits who are to replenish and swell the ranks of that army of practitioners which now numbers, in this country not far from forty thousand. Is it of little consequence that these recruits are qualified by education, habits, and moral training for the peculiar service of the physician! They are to be our brethren, our equals, and in the progress of events they are to be the exponents of the character of our profession, and give it rank in the popular regard. If they are thoroughly qualified by previous education, and bring to the investigation of the abstruse science of medicine, minds well disciplined to patient study and accurate research, then will they become masters in its various departments, and in subsequent life will sustain its reputation as a learned profession. If in addition to educational qualifications, they have correct morals, and sensibilities keenly alive to the sufferings of their fellows, then will they confirm its reputation as the most humane profession. But if the majority of those who are now about to enter our ranks have but a limited education, dissolute and profligate habits, and are seeking personal aggrandizement as the end and aim of life, then they will degrade the profession to which they belong, in the estimation of all whose opinion is entitled to respect and consideration. Could we determine the character of the recruits that are to-day admitted to the ranks of the army, we could with certainty foretell the value of that army, when the struggle of the con-

flict comes. We need scarcely add that if we judge from the past, many who now enter upon their medical studies have no proper qualifications. We could wish that it were not so; that those who stand at the threshold of the temple as its guardians, would carefully scan the applicants for admission, and turn away to more congenial pursuits, the ignorant, the immoral, the unworthy. Every association of men, for whatever purpose, guards vigilantly the door through which accession is gained to its ranks. The wisest and most trustworthy are stationed at the portals to examine each candidate that no improper person may become a member of its select body, and change the peculiarity of its original organization. But the ancient and honorable profession of medicine gives little heed, in this country at least, to the character and trustworthiness of those who guard the portals of its temples. Unconcerned it witnesses the annual influx of members, and sees the most unworthy too often elevated to the privileges and honors of its order without a remonstrance. It is true that hitherto the profession, as a body, has lacked the organization, and consequently the power, to protect itself from these degrading associations. The field of legitimate medicine, like a wide domain imperfectly hedged, is guarded by mercenary sentinels, and thousands, unqualified, annually purchase admission, and with the most meritorious, garner its rich fruits. But a better day is dawning upon American medicine, and a brighter era will ere long occur in its history. The profession at large has an organization which is already sufficiently powerful, were its forces but properly directed, to protect its own domain from further incursions. Through the medium of the American Medical Association, it can erect such defences as it chooses, and dictate, authoritatively, who may, and who shall not, be admitted to its highest privileges. That it cannot compel the educating bodies, as by legal force, to scan more closely the preliminary qualifications of students, and indicate the standard of educational qualifications of graduates, is very true; but it can by suitable organization establish its *own* standard of education, have its *own* examining body, and confer its *own* degrees. The exigencies of the times demand this of the American Medical Association; the honor, dignity, and character of American medicine are approaching a crisis which this body can avert. We may not now indicate the precise steps by which this great reform is to be accomplished, but that the initiatory step must soon be taken, and the work resolutely prosecuted to its consummation, no one who has at heart the

honor of our profession can for a moment doubt. In the collection of medical schools which it was our privilege to present in the student's number of the *Medical Times*, we have, we think, lain a foundation for rational speculation in regard to medical education in the United States. It not only affords the opportunity, much needed, of learning the advantages which the schools in different sections of the country offer to students, but what is of more consequence, we there learn the value which each school attaches to its diploma. This valuation indicates their standard of medical education. It is not our intention at this time, to enter upon that critical examination of the subject of medical education, to which this collection invites us, but simply to offer some general conclusions which are apparent on a superficial examination. What will, perhaps, prove to the mass of readers the most marked difference in our medical schools, has a sectional bearing, viz: between the Northern and Southern schools. It will be noticed that the fees in the Southern schools are uniformly high, those most recently established having a scale as high as the largest and most favored schools of the North. Among the Northern schools the scale of fees varies from the lowest of the Southern schools, to the price of the parchment for a diploma. If the scale of fees indicates anything as regards the estimate of the school of its educational advantages, and the value of a thorough medical education, this exhibition of figures shows a vastly higher appreciation of a medical education at the South than at the North. The next most striking feature in the schools is the almost universal interest now manifested in clinical instruction. This is, indeed, the most hopeful sign of the times. Heretofore the importance which the schools attached to clinical advantages depended entirely upon the facilities which their particular location happened to afford. The school so unfortunate as to have a situation distant from any hospital or infirmary, loudly decried clinical instruction, and many will remember that a venerable professor went so far a few years ago, as to regard it as absolutely injurious to the student. Schools situated in our lake and seaport towns, saw their advantage, and vaunted their facilities for clinical instruction, and, not unfrequently published in their annual circulars a list of all the medical institutions of the town, many of which were not even open to a transient visitor. Although clinical instruction, as given in our colleges and hospitals lacks system, and is as inefficient as it well can be, still we attach to it so much importance, that we regard this evident desire on the part of the schools

to afford such advantages to their pupils as in the highest degree encouraging. Again, it will be noticed, that nearly all of our most flourishing schools have large Faculties, and lengthened courses of instruction, several extending their terms to five months. This fact is worthy of notice, as it is due to the direct influence of the American Medical Association. In concluding these desultory remarks, which the opening of the medical session has suggested, we may add that a careful observation of the history of our educational bodies for the last few years, reveals certain inevitable tendencies which afford reliable data from which to cast the horoscope of the medical schools of this country. Clinical instruction is to become the *sine qua non* in a course of medical education, and hence those colleges located in populous towns which abound in public medical charities, will make the strongest appeal to students, and gain the largest classes. Those cities, again, which offer to the schools the largest advantages for hospital practice, will become inevitably the centers of medical education. Nor is it difficult, in the light of the above facts, to indicate the cities which are to be crowned with this proud distinction. That different sections of our wide extended republic must have their own schools of medicine, in which the differences of diseases dependent upon climate are to be especially taught, is evident. The North must have her own schools, and the South and West must have theirs. Already the Pacific coast constitutes a fourth climatic division which must have its schools. The great emporia of these grand divisions of the country must become the centres alike of commerce and education.—*American Medical Times.*

PRACTICAL CLINICAL REMARKS,

DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL.

BY FREDERICK C. SKEY, ESQ., F. R. S., SURGEON TO THE HOSPITAL.

ON TETANUS.

GENTLEMEN: One of the most mysterious amongst the numerous consequences of local injury is tetanus—a condition of the system that has hitherto for the most part baffled the highest efforts of human skill to arrest or cure. It cannot be

denied that every case of tetanus has not proved fatal. On the contrary, cases of no ordinary severity have recovered through the instrumentality, or at least consequent on the employment of remedies, but which presumed remedies having failed to obtain relief in other and similar cases, warrant the not unreasonable conclusion that recovery in the case or cases in question was not attributable to the agent adopted. I remember a case of tetanus treated by Mr. Abernethy in St. Bartholomew's Hospital with calomel and jalap, in doses of from one grain to five. The case was a severe one, and arose, if I recollect rightly, from a wound about the hand. The man's bowels were greatly constipated. The purgative, given every three hours in repeated doses, at length operated freely, producing several most offensive evacuations. Relief from the spasm followed, and the man recovered. Mr. Abernethy, from that time, henceforth, in his surgical lectures, recommended to his pupils the adoption of the particular agent he had himself found so successful in the above case, attributing the disease to a constipated condition of the alimentary canal. And yet tetanus is a rare affection, while constipation in every form and degree is of common occurrence. How far can the presence of a wound or other form of local injury give a specific or at least a peculiar form to the constipation consequent on it? But it is notorious that purgatives do not cure tetanus; and that they have not the confidence of the profession, is obvious from the general resort to remedies of a directly opposite tendency. Indeed, it would be difficult to point at the present hour to any agent that does command professional confidence, whether sedatives, anti-spasmodics, counter-irritants, or any other therapeutic agent. Amputation of the affected limb, though occasionally resorted to with recovery, has much more frequently failed. Much was expected from the agency of chloroform. Many besides myself have proved its incompetency to any ultimate benefit. Temporary good of a very remarkable kind cannot have escaped the observation of any surgeon who has employed it freely in these distressing cases. It is something to allay spasm and its concomitant pain, to lower the pulse to nearly its natural standard, to restore the natural respiration, and to recall the ordinary expression to the distorted features. All this is done by chloroform, which however, while it draws a temporary mask over the symptoms, allows the under-current to flow with an insidious but certain force till it reaches its crisis in death. I have elsewhere given the details of a case of tetanus, in which

under the administration of chloroform, a pulse of 130, coupled with rapid breathing, fell to the standard of health, as did the respiration, for a period of some eighteen hours, with the single interval of about half an hour, during which the administration of the agent was suspended, when the former symptoms instantly returned. Nor was the influence of the chloroform on the spasmodic condition of the affected muscles less remarkable. How conclusively do these facts point to the real nature and seat of the disease as centered in the nervous system, and prove that the circulating system is but secondarily involved! No sooner is the nervous centre sent to sleep than the disease appears as suddenly to cease. Notwithstanding this improvement, so deceptive and insidious, it is obvious that morbid actions predominate, and I doubt whether such temporary improvement, plausible and indeed marvellous as it is, can be said to indicate an arrest of the disease in however slight a degree.

A boy, aged fourteen, was brought into St. Bartholomew's Hospital, with a hand greatly mutilated by machinery. The house-surgeon decided, on consideration—and I thought wisely decided—to make the attempt to restore the hand. For twelve days he progressed favorably. On the thirteenth, he complained of stiffness in the back of his neck. When I saw him, at the expiration of some hours, spasm of the muscles had extended to the chest and abdomen; but none of the muscles were severely or painfully contracted. Still the signs were distinct. The boy was the subject of tetanus; and as I had never had a successful case, I was the more anxious to adopt some more promising agent than any I had hitherto employed. With this view I determined to test the efficacy of the woorara poison, which had been employed with some effect by Mr. S. Wells, in three cases of tetanus. By the kindness of Mr. Savory, who had a small quantity of the fresh poison, I was enabled to obtain sufficient for the purpose. We dissolved two grains in one ounce of distilled water. The boy being placed under the influence of chloroform, I amputated the hand immediately above the wrist-joint. My intention was to have applied two drops of the solution to the wound, and, observing the consequences, to have increased the quantity applied according to the effect produced. On recovering his consciousness, it was obvious that what had been done for the boy, whether the removal of the hand or the administration of chloroform, had been in the direction of good. The pulse had fallen from 135 to 100, and the rigidity of the muscles was greatly diminished and continued so. The pain

was also reduced and the countenance was more tranquil. He could open his mouth to an extent sufficient for the introduction of food. The rigididity of the muscles was by no means great, nor did he suffer the degree of pain usually attendant on severe cases of tetanus. It is very true that the sterno-mastoids, pectorals, abdominal muscles, and, indeed, the muscles of his trunk generally, were involved; but their contraction was comparatively slight, and certainly was unproductive of considerable pain. The use of the woorara was postponed, and I ordered the boy tincture of opium, ten minims; compound spirit of ammonia, half a drachm; brandy, half an ounce; every two hours. On the following day, I found he had had a tolerably good night; his pulse had slighly risen in frequency; the rigidity of the muscles had not increased; on the contrary, it appeared somewhat lessened. His countenance was more anxious, which appeared rather attributable to mental than to bodily suffering, for he had only recently become cognizant of the removal of his hand. By two o'clock on that day, the boy had consumed four ounces of brandy, half an ounce of spirit of ammonia, and eighty drops of laudanum. Still I had no excuse for the trial of the woorara. Doubtless the boy was in a dangerous condition; but it was obvious that the condition was not attributable to the morbid contraction of the muscular system, but to something beyond it. His bowels were constipated. I ordered him calomel and jalap, castor oil enemata of turpentine, croton oil in no insignificant doses, but I failed to produce the desired result up to the time of his death. In other respects, the same treatment was continued. On the third and fourth days his condition was not materially changed. He took food without difficulty, as also his medicine at the required intervals. The ammonia was increased to drachm doses. On the fourth day his pulse had increased to 135, and his countenance was more pallid. The rigidity of his muscles had not increased in any positive degree, and those of the extremities were entirely free from spasm. On the morning of the fifth day, he had taken, without marked effect on his system for good or for evil, about forty-eight ounces of brandy, one ounce of tincture of opium, and four ounces of spirit of ammonia. And we may form some judgment of the severity as well as the prostrating influence of the disease under which this poor boy was laboring, when we consider that such an enormous power was inadequate to produce the smallest impression on his system. On the last visit I paid, except that he appeared some weaker,

I cannot say that he was positively worse. He could open his mouth sufficiently wide for the introduction of nourishment, and he took food freely through the greater part of his illness. His pulse was a shade weaker, but not materially so. His spasms were not severe nor considerable, and assuredly they were not a source of pain; of this the boy gave me full assurance on many occasions. On the evening of the fifth day he died. His body was not examined.

If the nature of the disease we call tetanus could be ascertained by dissection, we should have acquired this knowledge long ago; but, so far as I know, we have obtained no information by such means, except negatively, on which to found a theory, or to obtain a guide to practice. The total amount knowledge consists in this: that at varying intervals after the occurrence of more or less violent local injury, and occasionally—but in our latitude very rarely—independently of injury, we observe rigidity of the muscular system, commencing with the muscles of the jaw and extending to the neck, trunk, and finally to the extremities; that it is accompanied by great pain in the contracted muscles, a quick pulse and respiration, and constipated bowels; and that it terminates in from two to six or eight days in death. Such is nearly the sum total of our knowledge of tetanus, and it may be doubted whether we are even now occupied in the right path of inquiry. We fix our attention on the local spasm of the muscular frame, as though that condition of the system constituted the essence of the disease, of which it is only a symptom. We rather search for remedies that will abate spasms, than for such as will attack its cause. The above case exemplifies negatively this fact. The boy died of tetanus, but not of spasm. At no period of his case was the contraction of his muscles so rigid as to cause pain of a severe character. He complained of his arm; he suffered from a sense of illness; he desired to be let alone, and not to be disturbed; his expression betokened serious illness; but he did not die from pain nor spasm; he gradually sank from utter prostration of nervous power, which every remedy employed was incompetent to contend against. And it is by no means uncommon to observe, towards the close of life, that the most prominent symptom of the disease—namely muscular rigidity—gradually subsides, while the real disease advances towards its fatal crisis. In the whole range of disease, I do not recollect any evidence of the existence of what we term the nervous system more remarkable or more conclusive than is derived from the influence of anæsthetics in tetanus. How absolutely is the morbid influence of the nervous system upon

the heart and respiratory system suspended by chloroform! and how suddenly, too! The pulse falls to its natural standard, the equilibrium of respiration is restored, and expression of suffering subsides under the reality of tranquil sleep. So complete is the external manifestation of health, that it would astonish a bystander, ignorant of the nature of the case, to be assured that in a few days, possibly in a few hours, it would terminate in death. Suspend the remedy, remove the influence of the anæsthetic agent, and the entire train of fatal symptoms starts, as it were, into existence—the pulse rises, the respiration is quickened in proportion, and the muscular spasm, with its usually inseparable companion, pain, become again dominant. Nor do we observe that the disease, to whatever extent it may have reached, is retarded or even diminished by the treatment. On the contrary, its progress is unremitting; and both the violence of the spasm and the severity of the pain are regenerated with an increase of intensity proportioned to the duration of time during which they have been suspended by anæsthetic agency. In the above case, I was fully prepared to test the curative properties of the woorara poison, as recorded by Mr. Wells and recent French writers; but I really had no excuse for its employment. The boy did not die either from or with spasm; and I cannot persuade myself that we shall ever discover in the woorara poison a curative property capable of rousing the vital powers, already oppressed by mysterious morbid actions going on within the frame. Still, I am quite prepared to acknowledge that all reasoning, more especially on a subject so obscure as tetanus, sinks in comparison with practical observation. Other authorties may view the subject in a different light; and it will prove no small accession to our knowledge should we discover in this or in any other untried agent, the power to arrest so hitherto fatal a disease as that which forms the subject of the above brief remarks.

TREATMENT OF LUPUS.

Peter F., aged 17 years, was admitted into the Royal Free Hospital in the first instance, on the 14th of May, 1856, under the care of Mr. Weeden Cooke. His occupation was that of an oyster dredger, at Maldon, in Essex; and he had

suffered for seven years from lupoid ulcers of the face, nose, and lips. He had been a patient in the Colchester Hospital, and also in St. George's Hospital. At the time of his admission, the whole face was covered with either the cicatrices of old ulcers, or ulcers encrusted and dipping into the muscles beneath the skin. The columna nasi was destroyed, and the disease was encroaching upon the alæ. The upper lip was thickened and ulcerated. The scaly ulceration extended upwards to the inner canthus of both eyes. Added to these miseries, he was extremely deaf, and altogether presented a most pitiable and unsightly appearance. Mr. Cooke ordered an ounce and half of lemon juice to be taken three times a day, meat and porter, with green vegetables; and the following lotion and ointment: bichloride of mercury, 8 grains; hydrochloric acid, 16 minims; water, 8 ounces; to be applied three times a day as a wash, afterwards covering the parts with zinc ointment. He remained in the hospital under this treatment, gradually improving, until August 17th, when he was discharged, with all the ulcers entirely healed, the deafness diminished, and his general health re-established.

In May, 1857, he again came to town and was admitted, the disease having returned on the cheeks and upper lip. The same treatment was adopted, and this time he was well again in a month.

In July, 1859, he again appeared among Mr. Cooke's outpatients, the upper lip and one cheek only being affected with the scaly ulcers. He was enabled to stay with a sister in town, and therefore not admitted, but placed under the same treatment, namely: lemon juice, fresh green vegetables, bichloride of mercury lotion, and zinc ointment. The cure was very rapid, the ulcers having well cicatrized in less than three weeks. His hearing also at this time was very greatly improved, and his general appearance so altered, that he was scarcely recognized as the same unhappy youth who first came under notice in 1856.

Mr. Cooke states that there was no sponginess of the gums but that the strumous aspect of the lad, and his occupation as an oyster dredger at the sea, led him to prescribe lemon juice as an anti-scorbutic remedy, and, as it turned out, with the happiest results. Still the adjuvant effect of the local applications must be by no means slighted or overlooked in the treatment of similar cases. Perhaps, however, the leaning generally, is to depend too much upon local, and especially caustic applications.—*Lancet.*

LECTURE ON THE LOCAL EFFECTS OF GENERAL DISEASES.

BY CLAUDE BERNARD.

That local affections, when unattended by general symptoms, cannot be viewed in the light of real diseases, and that the vessels or nerves are invariably the agents through which disorders, engendered upon a single point, are enabled to pervade the entire organism, has, we believe, been proved in our last lecture beyond the possibility of a doubt.

The various glands disseminated throughout the system have, as you are well aware, been divided into two great classes; those which extract from the blood certain special principles, which communicate to each particular secretion its own individual properties; and those which, on the contrary, appear to secrete the blood itself, if I may be allowed to use the expression, or, in other words, to enrich the circulating fluid with the products elaborated within their own tissue. Such, at least, are the views which have justified several physiologists in placing by the side of ordinary glands, the spleen, the thymus, the supra-renal capsule, and other highly vascular organs not provided with an excretory duct. The lungs, in which the great process of oxygenation is accomplished, exhibit, in its full force, the power attributed to this second order of glands; and the liver, which, if the biliary secretion is alone considered, belongs to the first class, is at the same time included in the second, on account of the grape-sugar which it produces. Now the influence of moter nerves on secretion is universally acknowledged; while the sensitive fibres are known to enjoy the property of setting in motion the opposite system; we are, therefore, naturally led to the conclusion that affections confined, at the outset, to one particular spot, may frequently poison the blood through a vitiated secretion of its fundamental elements, and thereby exert a deleterious influence over the whole system.

But diseases, however general in their nature, must always be viewed in connection with material alterations occurring within the body. The immortal writings of Bichat have taught us to look upon the vital powers not as forces independent of matter, but as the mere natural results of the properties enjoyed by matter, when impregnated with life; in this manner does the contractile force, in muscles, arise, as Haller expressed it, from the power of contraction possessed

by each individual muscular fibre; and, in this manner, are the general properties of the nervous system to be referred to the faculties bestowed on each individual filament. The old notions on this subject are, however, recalled by the name of vital *powere*, which Bichat still employed for the purpose of expressing the properties of living organic matter; and in the use of words alone does he follow the example of the ancients, whose views on the subject were entirely different from his own. Since that moment the labors of our contemporaries have invariably followed the same direction Pinel overthrew the doctrine of essential fevers, and struggled to prove that anatomical lesions were invariably their cause, however difficult it may be to discover them in certain cases. Broussais upheld the same opinions, in his various chapters on hectic fever; and science is now pursuing the same track; in the properties of matter known do we seek the cause of physical phenomena, whether belonging to organic or inorganic bodies. It, however, we endeavor to advance a step further, and to examine the intimate nature of the properties with which matter is endowed, we are at once brought to a stop; to solve the problem is not within the power of human reason.

There exists, therefore, no disease whatever which is not connected with a local injury; but after firmly establishing this great principle, we are often at a loss to determine whether the disorders which occur for notice, in the organs of patients who die of certain maladies, are the cause or the results of the disease; thus, for instance, the hypertrophy of the spleen which usually accompanies intermittent fever, and the intestinal ulcerations which coincide with typhoid affections, are held by some physicians to be the cause, by others, the mere consequence of the disorder. Physiology shows us that in the majority of cases, morbid alterations are the effects of sickness instead of being the hidden springs which gave it birth. Let us recall to mind for a single moment, the symptoms of the disease artificially provoked by injecting sand into the capillary vessels; an intense fever shortly makes its appearance, through the mere effects of nervous sensibility; now, in this case, the fever is not *sine materia*; a well-known cause has called it into play: yet, under these circumstances, what modification has occurred within the nervous system? Who shall teach us the difference which exists between a nerve in a state of rest, and a nerve in a state of intense irritation, from outward agents? Let us not, however, be too much ashamed of our ignorance in this respect; it is no disgrace to the Medical Sciences; in fact, no branch whatever of human known-

ledge is totally exempt from similar difficulties: is there a natural philosopher who will undertake to assign the difference between the molecular arrangement of a magnet, and that of an ordinary bar of steel? The inference to be drawn from these reflections is, that we are never entitled, even in the most emparrassing cases, to admit the existence of a physiological symptom which does not result from some material cause; but the imperfections of our actual knowledge, on the one hand, and those of the human mind on the other, render it impossible to seize in every case the mutual relation which exists between them.

The consequences of disease are, therefore, various anatomical lesions, which must not be viewed as the starting-point of the morbid series. In eruptive fevers the only characteristic lesion with which we are acquainted is a cutaneous disorder; no one, however, would think of describing the variolic pustulæ as the hidden source of the predominant affection. We are thus led, by a natural train of reasoning, to inquire in what manner general disease becomes local, after having ascertained the process by which local diseases become general: the two questions are most intimately connected.

A poison being introduced into the economy, the animal dies; a series of morbid phenomena have been produced the the explanation of which is not always forthcoming when the autopsy is made. But in the easiest of all cases—that of fever—is not a simple wound capable of producing the disorder? And if the animal happens to be ill-disposed, does it not sometimes die from the general reaction provoked? and are not local alterations (pneumonia, for instance,) often found to exist? We have even ascertained that in order to make any given organ the seat of the disease, nothing more than the section of the corresponding branches of the sympathetic nerve was requisite; we therefore discover, in this very simple morbid series, two separate terms. In the first place, a local affection which becomes general; and, in the second, a general disease which fixes upon one particular point. How can entirely local lesions, such as congestion, inflammation, and the formation of pus, be most conveniently explained when arising from general causes? The circulation has evidently been put out of order; and it has been presumed that the sympathetic nerve, so intimately connected with vascular physiology, is the channel through which the morbid impulsion is transmitted. Now, when inflammation commences, the capillaries become the seat of peculiar phenomena; circulation is at first accelerated, and afterwards retarded; fibrin accumulates in

in the little vessels and fills them up; and the point on which the obstruction arises, is known to be the primitive seat of inflammation. The buffy coat which, after blood has been drawn, rests on the surface of the clot, is a characteristic symptom in all inflammatory diseases. But how is its formation to be explained? what prevents the blood from coagulating as in a healthy state? A change has evidently taken place in the density of the fibrin which it contains, since, instead of imprisoning the globules, as usual, in its meshes, it rises to the surface of the liquid, in consequence of its lesser specific gravity. For this reason alone is the clot formed in an unusual manner; for it seems highly probable that the fibrin dissolved in the blood, the density of which it increases, is intended to hold in suspension the blood corpuscles; in fact, we see these little bodies fall to the bottom of a basin containing defibrinated blood, leaving the serum entirely colorless. It therefore may be advanced that in inflammations the fibrin contained in the blood has grown lighter than usual, since, when the fluid drawn from the veins is allowed to rest, it rapidly rises to the surface.

When the capillary circulation is examined under the microscope, the globules are seen occupying various positions; some of them adhering to the sides of the vessel, others rapidly moving in the sanguine torrent. After injecting into the arteries a large amount of defibrinated blood, M. Poiseuille saw the blood corpuscles form, as it were, a precipitate in the little vessels, as if obeying the ordinary laws of gravitation; and obstructions of greater or less extent, were, in this manner, rapidly formed. Supposing no special predisposition to exist in the economy, the liver and lungs would, of course, become the principal seat of similar impediments; the vascular organization of their tissue explains the preference. By this simple train of reasoning we can easily understand the creation of vascular deposits in various points of the body, under the influence of a modification in the physical properties of fibrin, when inflammation is produced; but when the blood ceases to be in motion in the centre of our tissues, the temperature of which is always sufficiently elevated to favor the action of chemical affinities, a putrid decomposition of the globules soon takes place; the assertion may easily be proved, by allowing defibrinated blood to stagnate for a short time in a basin, under a temperature of 95 degrees. The blood corpuscles are collected at the bottom of the recipient; the serum in the upper parts remains therefore unaltered; but let a small quantity of the same liquid be

drawn, with a glass tube, from the immediate vicinity of the globules, and it will be found to contain both sulphuretted hydrogen, and other products of decomposition.

Let us now inquire what is likely to result from the accumulation of putrid deposits within the principal organs of the economy; a local irritation will, in the first instance, be produced, which, acting through the sensitive nerves upon the system as a whole, brings on general symptoms again; let us add to these the poverty of the blood, which an imperfect nutrition no longer supplies with its proper elements, and the presence of deleterious substances arising from putrefaction, within the torrent of circulation; and it will astonish no one to see so important an assemblage of morbid phenomena ultimately end in death. Thus we find that a complete series of morbid symptoms frequently arises from an entirely local irritation, and follows out its natural course when once the starting point is given.

But fever is not, after all, the only mode in which general affections are enabled to bring on local disorders. In eruptive diseases, for instance, another totally different cause may be supposed to act. Let us inject, for instance, a large dose of carbonate of ammonia into the animal's veins; after experiencing, for a time, considerable uneasiness, the animal recovers, the noxious substance having been gradually eliminated. In this case, we find an instance of a general disease without any local disorder; but we are aware, at the same time, that poisons, however widely distributed throughout the economy produce local effects; phosphorus affects the lungs, and cantharides the bladder; and the peculiar mode in which these alterations take place is well known to you, namely: the elimination of the toxic agent through special organs. Now, in eruptive fevers, an entirely similar process takes place; an irritating substance is expelled by the skin, and leaves there deep marks of its passage; here, then, we have an action of a purely mechanical character, which does not offer the slightest analogy with those we have just referred to.

It now remains for us, gentlemen, to inquire into the influence exerted by exterior agents upon the histological elements of living tissues, and the modifications to which they give birth; and, in pursuing these investigations, we shall be struck with the differences exhibited by the various organs, whether considered in the various degrees of the animal scale, or in animals of the same species, or even in one and the same individual, when one apparatus is compared with another; and after having ascertained to what extent, and with

how great intensity they are acted upon by medicinal agents, we shall be prepared to examine the process by which medical influence is enabled to struggle against disease, and sometimes to overpower it.—*Med. Times and Gazette.*

Year Book of American Contributions to Medical Science and Literature.—Dr. O. C. Gibbs proposes to issue a yearly volume with the above title. Each volume is to be divided into three parts; Part First is to contain a summary of all the important and original papers found in the American journals for the preceding year. Part Second will contain a summary of all papers found in the published transactions of the National and various State and County Medical Societies. Part Third, will embrace reviews of all Medical Books of American authorship, published during the year, with a summary of all the novelties in opinion or practice therein. Those who wish to obtain the work—to be issued in January, 1861—should send their names and $3—the subscription price—to O. C. Gibbs, M. D., Frewsburg, Chautauque county, N. Y.

An Editor's Appeal.—Dr. Benson, of the *Louisville Medical News*, urges his subscribers to pay up, finishing with this appeal, which we want some of our subscribers to read and profit by:

"If you are our friends you should sustain us by paying what you owe. If you are our enemies you should 'heap coals of fire on our head' by paying what you owe. If you are entirely indifferent to us, manifest, if you please, that indifference by refusing longer to take our journal from the office, first, however, having complied with the law and equity by paying what you owe. If you have not the money send postage stamps, prairie chickens, old Bourbon, knit stockings, counterpanes, wolves' scalps, buffalo hides, sheep pelts, coon skins, whale leather, cast-off clothing—anything but your 'best wishes for our success,' unsustained by evidence."

This number does not belong in this volume.

THE NORTH-WESTERN

MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.

VOL. III. NOVEMBER, 1874. NO. II.

ORIGINAL COMMUNICATIONS.

ART. I.—*Monthly Reports on Epidemics and the Sanitary conditions of Chicago*, prepared for the Cook County Medical Society at the Meeting in November, 1874. By N. S. Davis, M. D., and Prof. in Rush Med. College.

The last report, made by your committee, had reference to the diseases prevalent through the month of August. Not having been able to attend the meeting of the Society on the first Tuesday in October, no report was made for September, and hence the present paper will contain a brief review of two months.

Having in the former reports traced somewhat in detail the progress of cholera and its connection, as far as possible, with the appreciable conditions of the atmosphere, we shall at present occupy very little time or space with that subject. At the close of our last report, the cholera had ceased its ravages as an epidemic, but sporadic cases continued to occur in all sections of the city, causing from two to ten deaths per day. During the first three weeks of September, the weather was moderately cool, and for the most part the atmosphere was dry. During this time the average number of cases and deaths from this disease gradually decreased. This was so much the case, that for several days previous to the 21st, I met with no well marked case of the disease.

On Friday, September 22d, I learned of four deaths from cholera within the compass of two blocks, between Randolph and Lake streets, west of the West Side Market House. These had all been attacked during the evening of the 21st and were either dead or in a state of complete collapse before morning. On inquiring of physicians, I learned that several other cases occurred at the same time, chiefly in the West division of the city. The number of cases and deaths occurring on the 21st and 22nd, was sufficient to indicate a sudden and well marked increase in the prevalence of the disease. A few days later the same increase of cases and deaths was found to exist in the South and North Divisions; and it continued with little or no abatement until the 13th of October. The whole number of deaths during the month of September from all diseases was 560 : of which 240 were reported to have resulted from cholera. During the first 13 days of October the number of deaths from all diseases was 190, of which 77 were attributed to cholera. During the week following the 13th the attacks became much less frequent, and for some time past I have not met with a single well-marked case. I have stated that during the first three weeks of September the weather was moderately cool and dry, and the prevalence of cholera slowly diminished. On the afternoon and evening of the 21st of the month there was a notable change. The atmosphere became very nearly saturated with moisture and the night warm. This state of the atmosphere continued two weeks. The temperature was at no time very high, neither was there at any time more than a slight sprinkling of rain, yet the proper tests showed constantly a high degree of saturation ; and some days the air was filled with a visible mist or fog. It was during this time that the cholera attacks became again so numerous as to cause considerable uneasiness in the public mind, and several well known citizens became its victims. During the third week in October the weather became cooler, accompanied by one or two copious rains, which for the first time thoroughly saturated the soil with fresh water. Since then the atmosphere has been clear, dry and pleasant, accompanied by a rapid improvement in the public health. The increase of sickness which was noticed during the last part of September

and the first of October, was undoubtedly caused in part by the increased influx of emigrants from Europe and the rapid return of many from other parts of the Union under the impression that the cholera had entirely ceased in the city. It is worthy of note also that the specific character and phenomena of most of the attacks which have occurred during the last period of the prevalence of the cholera, was somewhat different from those that were noticed during the summer. A smaller proportion of them were *rapidly* fatal, and there was manifested a much greater tendency to stop vomiting and purging before complete collapse, and to result in a very low grade of secondary typhoid fever, which it was often extremely difficult to remove. There were many cases also, that presented the copious vomiting, purging, cramps, and rapid prostration of ordinary epidemic cholera; but the matters vomited, instead of presenting the appearance of rice-water, were, throughout, thin as water and of a deep *green* or *yellow* color.

Although such modifications were seen in many of the cases, yet there were some as rapidly fatal as at any previous part of the season. I recollect well the case of an Irishman who had been in the city only a few days. He rose in the morning, eat his breakfast, and went to his work in a marble yard near by.—He shortly after felt sick, returned to his boarding house, and in less than one hour, he was in a state of complete collapse, and before noon life was extinct. I learned, however, that he had had serous diarrhœa during the last part of the night and early morning, but without mentioning it to any one. In one particular the following case may be worthy of recital:

Miss C., a school girl, aged 13 years, large size and fleshy, was attacked with active cholera on the evening of Oct. 10th. I was called to visit her in the night. Found her vomiting and purging frequently, the matter discharged being entirely serous or rice-water Her eyes were sunken and the skin underneath of a livid or purple color; the skin on the extremities shrivelled and cold; pulse very small and frequent; the voice husky, extreme thirst for cold water; frequent cramps in the extremities; and great restlessness. I directed strong sinapisms of mustard to be applied over the epigastric region, the spine and the extremities; and a

powder consisting of calomel 2 grs. acetate of lead 1 gr., and acetate of morphine ¼ gr., to be given *immediately after every* paroxysm of vomiting, and if the vomiting ceased, to be continued every hour until the diarrhœa ceased also. Her drinks were restricted to coffee and cold water given alternately in table-spoonful doses, and small pieces of ice to hold in the mouth. The next morning I found her still with a cold and corrugated skin, sunken eyes, husky voice, rapid and feeble pulse; but the vomiting, purging and cramps had ceased. As she was wakeful and restless, I continued to give her morphine in doses of ¼ of a gr. combined with one grain of calomel every three hours and spts. nit. dulc., half a tea spoonful between the powders. Up to this time there had been no secretion of urine, and the thirst remained unabated. At evening she had a moderate evacuation of urine, and two small discharges from the bowels consisting of a serous fluid of the color of strong coffee with black flakes floating in it. There was also more reaction, the skin being warmer, the cheeks slightly flushed, but the pulse, thirst, &c., the same as in the morning. I now directed her the following, viz.:

℞ Sulp. quinine	12 grs.
Pulv. G. camphor,	5 grs.

Mix and divide into five powders, one to be taken every two hours. Beef-tea had been given in small quantities frequently throughout the day, together with some coffee. These were continued. I was in hopes the quinine and camphor would give more force and steadiness to the heart's action, and thereby render the pulse fuller and slower. In this, however, I was disappointed. The next morning the pulse still remained small and quick, at least 150 per minute, the skin around the eyes and on the extremities of a purplish color, but warm; the cheeks deeply flushed and hot; considerable thirst; the tongue coated and dry; slight wandering of mind at times; and great restlessness. She had passed a small amount of urine and one or two discharges from the bowels very similar to that of the day previous. Believing that no healthy capillary circulation or functional action could be established while the pulse continued so rapid and feeble, and the patient presenting the appearance of sinking soon into a most dangerous typhoid con-

dition, I determined to try the effects of a direct and powerful sedative. All the previous remedies were discontinued except the animal broth, and the following, viz.:

℞ Sol. tinct. veratrum viride, ℥j
Tinct. opii camph. ℥j
Spts. nit. dulc. ℥ij

Mixed, and given in doses of a teaspoonful (one drop to the dram) every four hours, and the face and neck sponged over frequently with cold water.

At the end of twenty-four hours, I found the pulse reduced below 90 per minute, and more full; the cheeks were less flushed, and the color of the skin improved. The patient had slept more quietly, during which a slight perspiration appeared on the forehead. She had vomited a little green fluid once or twice, and had discharged from the bowels once, the evacuation being less frequent and of a greener color, instead of black.

I continued the same treatment, only diminishing the dose of the medicine to half a teaspoonful, given at the same intervals of time. During the succeeding twenty-four hours there was no vomiting or intestinal discharges; the pulse became natural in frequency; the thirst ceased; the urinary secretion was free and natural; and the countenance good, with some appetite. From this time the patient took very little medicine of any kind, and rapidly recovered. The point of interest in this case was the extreme rapidity of the pulse, continuing after the evacuations had ceased, and the apparently prompt influence of the veratrum in controling it, and arresting the development of a severe secondary typhoid fever. Those who have had much to do with the treatment of cholera have not unfrequently met with cases in which the discharges cease before entire collapse or loss of pulse at the wrist, but in which the pulse becomes extremely rapid, small, and feeble, accompanied by just enough re-action to give warmth to the surface over the face and trunk, with remaining coldness and lividity of the extremities, and nearly suppressed secretion of urine.

So far as my observations go, such patients linger from one to six days in a typhoid condition, with occasional vomiting of a

green liquid, and then die; though a few slowly recover. Regarding the rapidity of the pulse in such cases as depending on extreme exhaustion, I have generally endeavored to support the patients by moderate stimulants and nutritious drinks But the large proportion of deaths with those who get into the state here described, determined me to use the veratrum viride in the foregoing case, for the purpose of directly diminishing the frequency of the heart's action. The result was such, that I shall try it again, if I chance to meet with other cases presenting the same condition of the circulation. In endeavoring to improve our stock of knowledge in regard to the successful treatment of cholera, we shall, doubtless, gain more by studying carefully the varying indication which spring up in the progress of different cases, and the means best calculated to meet those indications, than by the vain search after new remedies which may be applicable to all cases and stages of the disease.

Dysentery.— During the two months embraced in this report, the prevalence of Dysentery in this city has very much exceeded, in the number of attacks, that of Cholera. It has prevailed, more or less, among all classes and ages, but the emigrants, those who have recently commenced their residence here, and the children, have suffered most As a general rule, the disease has been mild and easily controlled by proper remedies; but there have not been wanting cases of the most obstinate duration, and others of the most malignant or rapidly fatal character. The great majority of cases that I have met with, have commenced with rigors, followed by fever, pain in the head, loins, and extremities, together with frequent discharges of mucous, more or less mixed with blood, and accompanied by severe griping pains and tenesmus; agreeing in all respects so fully with the descriptions of the disease given by well known authors, that any details given here would be a waste of valuable time. A few cases have been observed in which the disease manifested distinct periodicity, and readily yielded to the use of Quinine and Opium in anti-periodic doses.

The most dangerous class of cases have been characterized at the beginning, by pretty *copious* and frequent discharges of a

serous fluid, mixed with sufficient dark colored blood to give the whole a dark red appearance. The patients complain of comparatively little pain or tenesmus, but feel a great sense of oppression and distress in the epigastrium, and extreme debility. The general febrile action is feeble, the extremities often being cool; the pulse soft and not more than 90 per minute; the countenance of a leaden or dingy hue and the expression dull; the mouth dry; the voice husky; the respiration feeble, and the mental operations slow. If the disease continues uncontrolled from three to five days, the tongue becomes more dry and covered, especially in the middle and back part, with a brown coat; the upper lip becomes retracted and the teeth covered with sordes; the pulse more frequent and feeble; the mind more dull and disposed to wander; and the discharges continue frequent, considerable in quantity, and consisting of a large proportion of very dark colored blood, and emitting an extremely offensive odor. Generally there are flakes and shreds of Lymph mixed with the discharges. Some of the cases terminate in fatal exhaustion between the end of the first and the middle of the second week. Others terminate still earlier by the supervention of true cholera, or rice-water, discharges with vomiting, and almost immediate collapse. I have seen only three or four of this class of cases. The following case will illustrate both the symptons and treatment of that form of the disease which we have been describing.

Mr. B., a native of Ireland, aged about 30 years, was admitted into the Mercy Hospital during the second week in October. He had been sick five or six days. His face was of a purplish red color; his tongue covered with a dry, brown coat, upper lip retracted, and teeth covered with dark sordes; mind very dull and inactive; pulse 90 per minute and soft; skin dry snd rough; abdomen full and tympanitic; with very frequent discharges from the bowels, consisting almost wholly of dark blood, emitting a very offensive smell, and amounting to very considerable in quantity. The discharges were frequently accompanied by much pain, and an imperfect control over the sphincter of rectum, allowing the blood to escape sometimes involuntarily. Wishing to diminish the quanti-

ty of bloody discharge, I directed for the patient a powder consisting of

℞ Pulv. Opii,	1 gr.
Pulv. Alum,	4 grs.
Sub. Murias Hyd.,	2 grs.

Mix and give every two hours; and between each dose give two fluid drachms of the Emulsion of Oil of Turpentine and Tinct. Opii.

Each dose of the latter would contain about 15 drops each of the Turpentine and Laudanum. The following morning I found no other change in his symptoms than a diminution of the bloody discharges. But they continued very offensive and dark colored, and the sphincter Ani was so much relaxed as to allow the discharges to occur before the patient could be gotten up or out of bed.

The powders were discontinued, and in their place, I directed a tea-spoonful of the following, viz:

℞ Nitric Acid,	℥i.
Tinct. Opii,	℥ii.
Strychnine,	1 gr.
Water,	℥ii, mix.

The Emulsion was continued as before, and the patient allowed a liberal supply of animal broth, well seasoned with salt. He was continued steadily on the use of these remedies for three days, from which time the discharges ceased to contain blood, and became fecal, though still much too frequent and liquid. His countenance also improved; the tongue became more moist, and the teeth less covered with sordes, and the mind more active. As the discharges remained quite frequent, though destitute of blood, and much improved in their nature, I directed a pill consisting of nitrate of silver one third of a grain, and opium one grain to be given two hours until the bowels should become quiet. We continued the pills about three days when the evacuations had become so much less frequent that they were continued only three times a day. At the present time there remains still a morbid sensitiveness of the mucous membranes manifested by three or four thin

fecal evacuations every 24 hours. The chief points of interest in this case were, the large quantity of very dark and grumus blood contained in the discharges; the relaxation or loss of power over the sphincter ani; and the apparent beneficial action of strychnine in removing the latter. I have had occasion several times to resort to the strychnine for the same purpose, in the advanced stage of typhoid fever and dysentery, and it has seldom failed to produce good effects. In a considerable number of cases of dysentery, accompanied by an unusual amount of blood in the discharges, together with much prostration, I have found the pulv. alum, in doses of from three to five grains, combined with opium, one of the most efficient astringents we possess. It is less sedative or debilitating than the acetas plumbi, and equally effectual in diminishing the quantity of the discharges.

Continued Fever.—During the last two months I have met with only four cases of that variety of continued fever called *Typhus;* and these were all in the persons of emigrants brought to the Mercy Hospital soon after their arrival in this city. There was nothing peculiar in their symptoms or treatment.

They were received into the same wards with other patients, but no other cases occurred among the inmates.

The ordinary typhoid fever has increased almost in the same ratio with the decrease of cholera and dysentery. Of thirty-two cases, concerning which I kept memoranda, twelve occurred during the month of September and the remaining twenty in October. In this list are not included those cases of typhoid disease following genuine attacks of cholera or cholera morbus. In referring to the class of individuals attacked, I find that nearly all were between the ages of 18 and 45 years; and 21 out of the 32 had been residents of the city between one and six months. Only a small proportion of the whole were emigrants recently from Europe, but more than half of the number were young men from other States, who had commenced their residence here since the first of March last. During the month of September and the first half of October, nearly all the attacks of typhoid fever commenced with general lassitude and a moderate diarrhea, lasting from two to six days, when for one day the discharges would become more

frequent, accompanied by pains in the head, back, and abdomen; a pulse between 90 and 100 per minute; skin dry and moderately hot; the tongue covered with a dirty white coat, most thick along the middle; sometimes the edges red, and the whole mouth deficient in moisture. This would characterize the onset of the disease, or the period when the patient takes to his bed. In some instances the gastric and intestinal irritation at the commencement was more severe, giving rise to both diarrhœa and vomiting. These, however, lasted only one or two days, when generally the gastric irritation subsided, and the diarrhœa consisted of only three or four thin fecal discharges per day. But as the intestinal discharges became less frequent, the general febrile action increased, the pulse becoming quicker and more full, the skin more hot, the face more flushed, the mouth more dry, and the coat in the middle of the tongue, appearing more dry and brown with redder edges, the abdomen rotund and slightly tympanitic, and the mind dull, with slight indications of delirium, especially during the night. The subsequent course of the disease has not differed from ordinary intestinal typhoid fever, as described in the books. During the last half of October the gastric and intestinal symptoms were much less prominent at the commencement of the attack; and in a large proportion of cases, the patients complained, during the first day or two, of rigors and chilliness, with more decided pains in the head, back, and extremities. In some cases, though the rigors did not continue after the second day, yet the fever was distinctly remittent, presenting a well marked exacerbation every afternoon and evening. So distinct were the exacerbations that in three cases full antiperiodic doses of quinine and opium were given, but in every instance it failed to cut short the disease and establish convalescence. Though I have in no case been able to *arrest* the fever by the use of quinine, yet in several cases which manifested distinct morning remissions, I have given four grains in a tea-spoonful of the emulsion of oil of turpentine and laudanum, at 6 and 9 o'clock A. M., continuing the emulsion without the quinine during the remainder of the 24 hours, and with decided benefit. Most of the cases that have come under my care have been mild and easily conducted to a perfect convalescence. Of those that came

under my care during the first week of their sickness, only one died. In the hospital where many patients are received after the fever has been existing from two to three weeks three died with the disease, presenting plain evidence of ulcerations in the mucous membrane of the ilium. The one case that terminated fatally after having been subjected to treatment early, was that of a young man who was attacked first with diarrhœa, for which he took some very heating medicine from an eclectic physician.

The medicine checked the diarrhœa very quickly, but it was followed immediately by an increase of fever and pain in the head and abdomen. I found him the following day with all the symptoms of a severe continued fever with intestinal irritation. At the end of a week the fever subsided, the tongue became clean, the fecal evacuations very nearly natural, and all the usual symptoms of entire convalescence. But the patient, instead of gaining strength, continued dull and weak, and a slight tenderness remained over the right iliac region. He continued in this state of apparent convalescence eight or ten days, very slowly improving in appetite and strength, when he was seized with sudden and severe pain in the abdomen, followed by rapid distension and tenderness, with a feeble and very quick pulse, and death ensued in 48 hours. Though no post mortem examination was made, yet there could be very little doubt but perforation of the intestine and consequent peritonitis was the cause of the fatal result. The members of the society are aware that the use of the veratrum viride in the treatment of typhoid fever, has attracted considerable attention in certain places during the last two years. I have made it the subject of special attention during the present season, and have found a certain class of cases in which its medicinal effects are very valuable. These cases are such as present, early after the attack, a rapid pulse and hot skin, indicating an unusual grade of irritative excitement in the circulation. The following case will illustrate the class to which I refer, and the mode of prescribing the remedy :

Mr. B., a native of Ireland, aged 35 years, had been in the country, and was there attacked with fever, preceded with lassitude and rigors. He was induced to take freely of Cayenne pep-

per, brandy and quinine. Continuing sick, however, he was, at the end of the first week, sent into the city, and received into the Mercy Hospital. I found him with a deep red flush over the whole face; the eyes suffused; the lips, mouth, and tongue dry, the latter being brown along the middle and red at the edges; the mind wandering; the skin hot; the pulse 120 per minute and moderately firm; the respiration hurried; the bowels quiet; and the urine scanty.

I directed for the patient a powder containing Sub. Murias Hydrag. two grains, Pulv. Doveri and Bi Carb. Soda, each five grains, to be given every four hours, with a tea-spoonful of Spts. Nit. Dulc. between. The surface, especially of the face and upper part of the trunk, were to be sponged over with cold water. This treatment was continued forty-eight hours without any decided alteration of the symptoms. The tongue became more dry and brown, the skin remained hot, and the pulse more than 120 per minute. Owing to the continued rapidity of the circulation, and active grade of febrile excitement, I discontinued the powders and Spts. Nit Dulc., and gave the following, viz:

℞ Tinct. Veratrum Viride	- -	℥i
Tinct. Opii et Camph.	- -	℥j
Spts. Nit. Dulc.	- - -	℥j mix

and give one teaspoonful every two hours; and allow a small quantity of beef-tea for nourishment. The following morning the pulse was reduced to 80 per minute, the skin was cool and moist, the mind less delirious but inactive, but the surface of the tongue remained dry, and the bowels had moved three times, the discharges being thin and brown. The Veratrum mixture was continued at intervals of once in 6 hours, and a teaspoonful of the emulsion of turpentine and laudanum given between. This was continued for three days, during which the pulse remained below 80 per minute, and the general febrile action seemed entirely overcome. The tongue also became more moist and of a better color, and the discharges from the bowels more healthy. The veratrum was now omitted and the emulsion alone continued two or three days longer, when complete convalescence was established. The rapid subsidence of the fever and the reduction of the pulse exhibited in this

case, I have seen follow the use of the Veratrum Viride in almost every instance, in which the fever in its early stage was accompanied by unusual frequency of pulse, without excessive intestinal irritation.

But its beneficial effects have been limited to these cases alone. In those cases manifesting but a moderate frequency of pulse, a depressed state of the organic actions, and general dulness or diminished sensibility, I have derived no benefit from its use. And in all cases of typhoid fever it is necessary to guard against its tendency to disturb the stomach and bowels. To effect the latter purpose, I generally exhibit it in combination with camphorated tincture of opium.

I will mention but one other disease in this report.

Puerperal Fever.—Between the 15th and 25th of September, I met with four cases of well marked puerperal peritonitis.

These cases occurred so near together that I at first feared that it was commencing an *epidemic* prevalence. But on inquiring of other practitioners, I found no corresponding prevalence of it in their practice, and no other cases have occurred since in my own. I was, during the period named, attending one or two cases of severe erysipelas, and it is possible that a poison might have been communicated to the females, or the occurring of the four cases within a few days of each other, might have been purely accidental. The first case occurred in a female of delicate constitution, and who had manifested strong indications of the "*nursing sore mouth,*" during the whole period of gestation. It was her first child, and the labor was rather protracted. She appeared to be doing well, however, until the fourth day after delivery, when she was seized with chills, followed by a hot skin, very rapid pulse, hurried breathing, anxiety, restlessness, and severe pain in the lower part of the abdomen, with acute tenderness to pressure, and a rapidly increasing swelling of the abdomen. At the same time the lochia and the milk were suppressed. She was directed a powder, consisting of Opii 2 grs., and Sub. Murias Hydrarg., 4 grs., every two hours, with anodyne fomentations to the abdomen. At the end of 48 hours the progress of the disease was arrested and the symptoms favorable. Wishing to avoid as far as possible

the effects of mercurials on account of the constitutional debility of the patient, and having heard the muriated tinct. of iron spoken of in very high terms as a remedy in this disease, I directed it to be given instead of the powder in doses of 20 drops, diluted with sweetened water. Its exhibition, however, was quickly followed by gastric irritation, with increased pain in the lower part of the abdomen and great restlessness. She was put upon the use of sedative doses of opium alternated with the tinct. of Digitalis and spts. nit. dulc., and ultimately recovered. The second case occurred after an ordinary labor, but was quickly overcome by a few full doses of opium combined with calomel. The third case occurred the third day after a premature labor, occurring about the fifth month of pregnancy. She was treated with opium and calomel and fomentations, as in the two previous cases, and convalescence was pretty well established about the fifth day after the attack. She continued apparently recovering two or three days, when she was suddenly attacked with cholera, sunk rapidly into collapse, and died in a few hours. The fourth case was that of a lady who had been several times delivered at the full period of gestation, but always with still-born children. This latter result was owing to the fact that her children invariably presented unnaturally. In this, her last confinement, the posterior part of the left *scapula* presented, and was the only part that could be reached with the finger. She was delivered without much difficulty or delay by introducing the hand and bringing down the feet.

She continued to progress very favorably until the commencement of the third day, when she was seized with chills, followed by a hot skin, deeply flushed face, a pulse up to 150 per minute, breathing hurried, countenance anxious, abdomen full, tympanitic and very tender, with constant severe pain in the lower part of the back and abdomen. The lochial discharge was also suppressed. I gave her every two hours a powder, composed of Pulv. Opii 2 grs and calomel 3 grs., with warm hops over the abdomen. After the first 24 hours, the stomach began to reject every form of opiate that was given. Still all the bad symptoms continued; the pulse was very quick, the abdomen very full and tender, and the patient extremely restless. Unable to use opiates, and fearing to

bleed. I resolved to try the sedative influence of the veratrum viride. I accordingly directed the following, viz:

℞ Tinct. Opii et Camph. - - ℥ij

Tinct. Veratrum Viride - - - ℥i mix,

and give one fluid drachm every two hours. This was retained by the stomach, and in 12 hours the patient was more quiet, and the pulse less frequent. The medicine was continued at intervals of three hours, and in 12 hours more, the pulse was below 90 per minute, the face pale, the skin cool and covered with moisture, the abdomen less tender, and the patient tranquil. Fearing too much sedative action, I omitted the veratrum, and directed moderate doses of quinine and camphor. In less than 24 hours, however, the fever, quick pulse, restlessness, and abdominal tenderness began again to increase. She was immediately directed to re-commence the use of the tinct. of veratrum viride and paregoric in the same doses as before, and at intervals of three hours. Its effects were as promptly beneficial as before, and by continuing it in smaller doses and at longer intervals for two or three days, complete convalescence was established, and the patient made a rapid recovery. This is the first and only case of child-bed fever in which I have used the veratrum viride. Whether it will prove a valuable agent for combatting this much dreaded disease, further trials must determine.

ART. II.—*Hepatic Abcess.* By Dr. F. R. Payne, Marshall, Ill.

The liver is liable to various forms of disease, both in this country and in Europe. But notwithstanding the multiform diseases to which this organ is exposed, and the frequency of their occurrence in every climate, all intelligent practitioners are aware that their discrimination is attended with much difficulty; consequently reliable judges in their treatment are but few. The great precision which recent developments of science has given to our knowledge of many other diseases, is well calculated to stimulate medical men to a more thorough investigation of those which are but imperfectly understood. *Suppurative inflammation* of this organ is not of frequent occurrence in this country. During a

practice of eleven years in the Wabash Valley, I have met with but one case, and the fortunate termination of the disease under the most unfavorable circumstances, together with the unusual amount of matter discharged, has induced me to hope that a brief report will not be uninteresting to the members of this society.

Oct. 18th.—Mrs. M., aged thirty-six years, robust constitution, and mother of seven children. She had been under the charge of another physician for about fifteen days previous to my seeing her, and it seems the Doctor was of the opinion that she was suffering from the effects of a disease which he denominated, "*Fall Fever.*" From the imperfect history of the case, up to this time, which was derived from the patient and friends, it was difficult for me to determine what had been the early character of the disease. But I was induced to believe it had been *bilious remittent fever*, but had now assumed a typhoid type, with much hepatic disturbance. Her pulse was 120, tongue dry, bowels costive, pain in the right hypochondrium. Ordered three alterative portions sub. mur. hyd. to be carried off in eight hours after last powder, with Olei Ricinum and Terebinth. Dover powders after medicine operates and blister over region of the liver.

19th. Not much improvement. Continued treatment.

20th. Found her very restless, pain extends to the right shoulder and down the side. She is very much debilitated, bowels costive. Ordered wine and laxatives.

22d. Hepatic disturbance increasing, liver enlarged. Pulse 110. A remission of fever during the morning. Gave cathartic dose Pilula Hydg. and Quinine, Morphine and sup. Carb. Ferri, during the remission.

24th. Patient better; tongue moist; bowels have been freely moved; has some desire for nourishment. She was visited frequently by Dr. H. R. Payne and myself up to the 12th of Nov. At that time she had pain and tension on the right side, great emaciation, bowels costive, shivering and chilly sensations, tumor large, extends to hypogastric region. Ordered nitro-muriatic acid bath and continued a supporting treatment. At this time I was fully satisfied that my former suspicions were correct, and that the previous inflammation of the liver had terminated in suppuration. I

explained the character of the malady to the patient and her friends, and urged the propriety of an operation as early as practicable.

Nov. 27th, which was about eight weeks from the time the first symptoms made their appearance, Dr. C. L. Duncan and I visited her and found a slight elevation of the cuticle, with œdema and tenderness about 1½ inches from spinous process of the last dorsal vertebra on the right side, into which the lancet was introduced and followed by a copious discharge of pus. The treatment ordered at this time was tonics and stimulants, with an occasional laxative, as the bowels would not perform their function without artificial interference. The pus continued to flow for three weeks, during which time she used iodine internally and externally, in connexion with tonics and stimulants. I would not hesitate to fix the amount of pus discharged at two gallons, but we have no means of ascertaining the exact amount. It has not been my object to give the minutes of treatment in the above case, as there was nothing peculiar in it. The fortunate termination of the disease under such unfavorable circumstances, must be attributed, in a great measure to the *vis medicatrix naturæ*, or conservative power of the system. Was it not for this power of the system, every intelligent physician is aware that a deep-seated abscess in a vital organ would necessarily prove fatal. The patient now enjoys good health.

ART. III.—*On Snake Bites.* By WILLIAM HANLEY, M.D., of Naperville, Ill.

July 31st, 7 A.M., was called to H. W. J——ll's, aged 29 years; found him suffering from a severe bite of a rattlesnake, situate on the leg, about an inch above the ankle. The whole limb was swollen as far as the abdomen, and of a purple hue, as far as the knee; vomiting a greenish fluid; the surface of the body cold, and bedewed with excessive perspiration; pulse 137, timed by the watch, and respiration very difficult. The wound was inflicted about 3 P.M. on the 30th, whilst walking barefooted in his corn field. He killed the snake, which was a very

large one, and possessed fourteen rattles. I was informed that suggested remedies had been employed of the following nature, viz.: giving large portions of brandy, until symptoms of intoxication became manifest, and applying topically spirits of ammonia, snake weed poultice, honey and salt, and indigo, each separate in the order named, without change in his condition, except for the worse. I at once had the limb washed with warm water, and applied spirits terebinth, saturated with nitrate of potassa, freely to the wound, and the entire surface of the limb, employing at the same time considerable friction with both hands. I gave him thirty drops of the same mixture every half hour, in two tablespoonfuls of cold water, until he had taken four doses. The first was swallowed with great difficulty; the second no easier; the third with scarcely any difficulty; and the last quite natural. Vomiting ceased with the first dose: the purple color of the skin began to assume a rose color in about twenty minutes from the first application; and in one hour the limb was much reduced in size. At 9 A.M. I left him, with very little swelling in the limb, an entire disappearance of the purple color of the skin; heat restored to the surface of the body; respiration easy and natural; pulse 85; perspiration reduced to a slight moisture, instead of a complete drenching, as when I first saw him, and a disposition to sleep.

I called at 3 P M., and found he had slept two hours, and awoke feeling quite well, except a slight head-ache. I was induced to try the above remedy from the following considerations: terebinth being a styptic of the first class, and a rapidly diffusive stimulus, I looked upon it as suitable for employment in this case, for the purpose of restoring heat, and acting as a styptic to the cutaneous circulation. I combined nitrate potassa with the same, in consequence of its well known antiseptic and vivificating influence on the blood.

The *modus operandi* is that of a diffusible and vivificating stimulus, producing an antiseptic condition of the blood, bringing on rapid contraction of the capillaries, adapting the calibres of vessels to the diminished column of blood, (caused by effusion of its serum between the cuticle and tissue,) restoring a healthy cu-

taneous circulation, and producing a sense of warmth and comfort, instead of coldness and death like exhaustion.

Two other cases of snake bite came under my observation—one August 6th, the other August 10th—the former a young man, aged 18, bit on the arm whilst binding oats; the latter a girl, aged 9 years, bit on the foot whilst playing. Neither of them manifested any other symptom than swelling, and a slight discoloration around the wound. I treated both with the terebinthinate mixture with satisfactory results.

ART. IV.—*Case of Injury of the Brain, and Loss of Substance; with Recovery.* By B. WOODWARD, M.D.

On the evening of the 5th of August last I was called to see a boy 6 years old, who had been kicked by a colt. The injury had occurred some four hours previous to my seeing him. The child was insensible. The whole upper part of the nose was broken down, and the bones driven over under the integuments of the left cheek, under the eye. On cleansing the wound, I found not only the nose broken down, but the skull fractured over the right eye, and under the eye-brow, and a mass of brain (lacerated) as large as a large hickory nut protruding. As soon as efforts were made to replace the bones of the nose, violent vomiting was produced, and more of the brain was forced out. I deemed it best to call council, and Doctor Porter of Prophetstown was called in. On making renewed efforts to replace the bones of the nose, he found the vomiting and consequent protrusion of the brain so great as to cause him to desist; and we concluded to meddle with the nose as little as possible, for fear of still further endangering the life of the child. The nasal passages were cleared, the brain, which had exuded, removed, and the wound dressed.

The next day, the father of the child, not being satisfied with his looks, Doctor Cottle of Albany was sent for. He thought, as we had done, that it was best to meddle with the nose as little as possible, as there seemed already but little chance for the life of the child.

The case was now left in my hands; but I would here acknowledge my obligations to both the medical gentlemen for their valuable advice as to the further management of the case.

For eight days there were more portions of the brain protruded, which I as often removed, and trusted entirely to keeping the head cool, the bowels open with saline purgatives, and a low diet, except that I used the nit. argent. freely to the broken or cut surface of the brain. I tried compresses from time to time, in order to prevent the loss of the substance of the brain; but the least pressure would produce convulsions. I would only state further, that in due time the wounds all healed, and the boy recovered.

This case has taught me never to despair as long as there is life.

SELECTIONS.

On the External Application of Belladonna in Delirium Tremens. By Dr. GRIEVE, Physician to the Dumfries and Galloway Infirmary.

Reflecting upon the contracted state of the pupil in the second or developed stage of delirium tremens, Dr. Blake imagined that "by dilating the pupil we might so influence the disturbed visual sense as to dispel, or at least modify, those 'false creations proceeding from a heat-oppressed brain' which characterize this disease, and thus conduce to the comfort and tranquillity of the patient;" and one case is related in which this plan was adopted with apparent benefit. In support of his idea, Dr. Grieve reminds us that the late Dr. Graves proposed the use of belladonna in such cases of fever, as were attended with cerebral disease, and contraction of the pupil.

CASE.—On the 25th of March last I was called to attend D. B., aged 49, a man naturally of a robust constitution, but who, of late years, had been much given to intemperance. On inquiry I found that he had been more or less intoxicated for the last three weeks, that he had slept none for several nights in succession, and that the present was his fourth attack of delirium tremens. I found him suffering under great nervous excitement and commotion; laboring under all sorts of optical delusions; fancying that lizards, centipedes, and other entomological horrors were crawling in and around his bed, from which he was convulsively making vain efforts to dislodge them. His pulse was upwards of 120, soft and compressible; his whole body was bedewed with a cold clammy perspiration, and the pupils of both eyes were much contracted. Having obtained some extract of belladonna, I rubbed a little on the eyelids, and remained by his bedside to mark the result. My expectations were soon more than realized, for no sooner was the physiological effect of the drug manifested in the dilated state of the pupils, than the spectral illusions gradually became less and less distinct, the nervous tremors and excitement began to subside, and he soon became comparatively quiescent and tranquil. Soon after this I had the satisfaction to see him fall

into the much coveted sleep. Thus I left him: and on revisiting him in a few hours I found that he had slept for two hours; his pupils were then still much dilated; his pulse was below 100, firmer, fuller, and of better character; and altogether his condition, mental and corporeal, was much ameliorated. On interrogating him about his recent hallucinations, he replied, "They were all stuff and nonsense: I see no more of them."

On the Nature, Cause, and Treatment of Cholera. By DAVID LEWIS, M. D., Licentiate of the Royal College of Physicians, London; Physician to the Royal General Dispensary, Aldersgate-street.

In the midst of so many specifics for the cure of cholera, and and such numerous theories to explain its cause, I venture to submit the following observations to notice with considerable diffidence. But I am emboldened to speak plainly, because to the best of my belief, I speak the truth—a belief founded upon impartial observation, and confirmed by a lengthened experience. I have treated many hundreds of cases of diarrhœa according to the methods generally reported to succeed, and the result of my experience is, that two only of the various plans avail to cure—viz.: the employment of alkalies, or the stronger acids. But these plans appear to fail so seldom, that I now invariably prescribe them with perfect confidence. But how can remedies, so opposed in all their characters, produce, when administered, similar effects? What is their action?

I believe the almost universal cause of diarrhœa to be an excess of acidity in the stomach and intestines, and I believe that alkalies act by neutralizing, and the mineral acids by destroying, this morbid condition. That diarrhœa is so generally caused by the presence of of a morbid material, of an acid character, I think is proved by the following facts:—A gentleman of high standing in society partook heartily of some cherry-pie for supper; he was attacked with diarrhœa in the night, and died of cholera next day. Another gentleman being in delicate health, drank two glasses of champagne at dinner; he was attacked with diarrhœa in the night, and died of cholera in nine hours. Another man drank a quart of sour beer, was soon attacked with diarrhœa, and died of cholera in twelve hours.

Now I extend this theory to the cause of cholera, and employ either of the above means for its cure, and the uniform success of my treatment strengthens my confidence in the strength of my theory. I believe, then, the cause of cholera to be some material

of an acid nature, or possessing acid properties, and that by virtue of this character, it acts so as to produce cholera, and destroy life. This acid can be neutralized by alkalies, or destroyed by stronger acids, even as uric acid can be neutralized by alkalies, or broken up by nitric acid. This theory I believe to be true, the facts upon which it is founded I know to be incontrovertible, and with regard to both, I would say, in the words of Horace, to those who hesitate to believe,

"Si quid novisti rectius istis,
Candidus imperti ; si non, his utere mecum."

The following list includes the principal modes of treatment hitherto recommended :

Calomel, in large doses and in smaller and frequent doses; calomel with opium ; opium with large doses ; alcoholic liquids ; camphor and musk ; acetate of lead ; sulphate of copper ; vegetable astringents ; quinine : arsenic ; iron : the saline plan, as recommended by Dr. Stevens ; the tartarized-anatomy plan, as recommended by Dr. Billing ; emetics : the free administration of cold water and ice ; the cold bath ; the application of the wet sheet ; injunction of saline or other fluids into the veins ; bleeding ; electricity.

Calomel, according to my experience, both in large and small doses, has been totally worthless. Before the collapsed state ether remedies are more efficient in arresting the progress of the disease, and in the collapsed state, when the process of absorption has ceased, calomel may be given in spoonfuls without any effect. I look upon the treatment of cholera in the early stages by calomel as only tampering with human life, whilst yet the disease can be arrested to a certainty by other means. Practitioners examine the alvine evacuations, and finding deficiency of bile, immediately throw in calomel, until the secretion of the liver is established, forgetting that the biliary secretion is dependendent on the general state of health, and that the absence of bile is the consequence, and not the cause, of the disease. Calomel at the onset acts as a purgative, and relieves the stomach and bowels from any irritating matter which might tend to aggravate the diarrhœa : beyond that point it has no effect whatever on the disease In London, calomel, given as a specific in all cases of diarrhœa, to the ill-fed and badly clothed, and those residing in pestiferous localities, be a poison as destructive as the cholera itself. In the country its effects are not so deleterious because the people are stronger and better fed. A medical practitioner at Shoreditch told me that he had given calomel "until he was sick of it." without any perceptible effect Children and young people are not so easily killed by calomel, as the more advanced in age ; nevertheless there is no

reason to persevere in such a mode of treatment when there is no necessity for it.

Calomel and opium may be applicable in some cases in the early stages, but when the disease is bordering on the eclipsed state, the remedy is useless.

Opium will allay the irritation of the bowels after they have been cleared by an antacid aperient draught.

Stimulants are serviceable according to circumstances; but there is no dependance to be placed on them as specifics in the disease, with the exception of ammonia.

The acetate of lead, the sulphate of copper, &c., are poisons, and totally useless in the cure of cholera. The same remark is applicable to quinine, iron, and arsenic.

The saline plan, as recommended by Dr. Stevens, is nothing more than an indirect application of a principle to destroy the acid products of the stomach, which can only be done by either alkaline or acid remedies.

I have seen the saline treatment tried in a favorable case without any effect. The young lady died in twelve hours.

Emetics act on the principle of clearing the *primæ viæ*; there is nothing in the plan beyond relieving the contents of the stomach, which might as well be done by an aperient draught.

The free administration of cold water and cold baths do more harm than good in nine cases out of ten. In the state of collapse, when the thirst is great, cold water may be given, but I have rarely seen any permanent good effects arise from it.

The injection of saline and other fluids into the veins only answers the purpose of those who aim at notoriety at any price. Bleeding is worse than useless.

Electricity has no influence over the disease. The use that was trumpeted in all the newspapers as having occurred at the Free Hospital I happened to witness. There was no collapse, nor any urgent symptom requiring a peculiar mode of treatment.

In September, 1849, the Cholera Committee of the Royal College of Physicians sent a list of questions to the members. One of them was the following: "Does it accord with your experience that cholera, in the stage of "serous" or watery diarrhœa, can with facility be checked? What means have you found most effectual in attaining this end?"

I have found no difficulty in arresting the serous or watery diarrhœa by either of the following plans of treatment. In the first place I assume that the disease is dependent on acidities in the stomach, and treat it accordingly. According to the first method, a powder, containing a scruple of rhubarb and the same quantity of the carbonate of magnesia, is invariably given by me before an attempt is made to arrest the diarrhœa. Without the above pur-

gative I found I could not depend on the astringent mixture. I have been obliged to repeat the rhubarb and magnesia more than once in excessive purging before the diarrhœa could be arrested. Instead of hurrying the diarrhœa into cholera, as has been imagined, it is the only certain method of arresting the disease, since it clears the stomach and bowels from the morbific matter. After the powder has passed through the bowels I give the following mixture:—Powdered (prepared) chalk, two drachms and a half; sesquicarbonate of ammonia, sixteen grains; tincture of opium, half a drachm; compound tincture cardamoms, three drachms; cinnamon water, an ounce and a half; water, four ounces. Mix. Two tablespoonsfuls after every motion.

It is important to give a dose of the mixture after every motion, otherwise the objects of arresting the diarrhœa by neutralizing acidities in the *primæ viæ* and quieting the bowels, will not succeed in equal ratio by giving the mixture every two or three hours. At the Islington Dispensary there were in 1849 *nine hundred registered cases of diarrhœa and incipient cholera*, which were all treated on the above plan, without a *single death*. Not a grain of calomel was given. Within the last three months three thousand cases have been treated on the same principle at the Royal General Dispensary, without *one* failure. The success of this plan has been such that I am perfectly satisfied with it; and I have no hesitation in saying, that if the diarrhœa be treated as above, by antacids and astringents, or by mineral acids, there would be but few cases of death from cholera.

The second method of treatment is by the employment of the stronger acids in moderate doses. These, I believe, act by at once destroying the morbid material, and thus produce the same results as alkalies, which neutralize it; for this purpose two drachms of diluted sulphuric acid to six ounces of water, for a mixture, of which two teaspoonfuls to be given to children after every motion, or two tea spoonfuls in the same manner to adults, seldom fail of success.

Finally, I look upon the case of cholera as a poison of an acid character, or capable of generating acids in the stomach, acting solely on the mucous membrane of the stomach and bowels, and if neutralized by carbon and carbonates, or destroyed by mineral acids, it will be rendered inert, just the same as any other poison by its antidote.

Keeping this theory in view, no one need be at a loss to treat cholera on a specific principle.

From the Lancet.

A New Theory of Animal Heat.

At a late meeting of the Physiylogical Society of London, Dr.

Winn read a paper on "The Elasticity of Arteries considered as a Cause of Animal Heat," and presented a series of experiments made by him with a view of proving the theory.

He states that about seventeen years ago, whilst experimenting with the caoutchouc, he was struck with the property which that substance possessed of evolving heat when suddenly elongated, and was led to infer the probability of other bodies being similarly endowed. The elastic coat of arteries, especially, appeared to be one of the substances likely to exhibit the califactory principle; and in the event of this being the case, it would not be unreasonable to infer that the incessant contractions and dilatations of the arteries during life must form an efficient cause of animal heat.

The following experiments, made with portions of the aorta of a bullock, somewhat verify the conjecture, and are, at any rate, worthy of notice:

Having cut off a circular portion of the descending aorta, an inch in length, he laid it open, and removed its external and internal covering. He then pulled it to and fro, with a continuous jerking motion, (in imitation of the cystole and diastole of the heart,) for one minute. He then placed it in the bulb of a thermometer, and found that the mercury had risen *two degrees*. To be certain that the increased heat did not arise from any source, he took the precaution of wrapping his finger with a double fold of flannel, in order to prevent a communication of heat from the body. He also covered his mouth with a handkerchief, to guard against the warm breath affecting the experiment. There was no fite in the room, the temperature being 36°.

The principal difficulty in this investigation appears to be the moisture of the artery, which, by its evaporation, had a tendency to carry off a portion of the heat. By carefully drying it with a cloth, however, this impediment was partially removed.

His attention was often arrested during the experiment by other mechanical analogies between the clastic coat of arteries and caoutchouc. They both would bear elongation to twice their length, and would return to their usual dimensions with considerable force and the same snapping sound.

From the preceding observations, Dr. Winn concluded that the generation of animal heat could be satisfactorily explained. Physiologists had proved that a certain portion of animal heat was the result of chemical changes in the blood. Yet they confessed that a residuum of heat could not be thus accounted for, and Dr. Winn proposes to refer this residuum to the mechanical action of the arteries. Although difficult to measure the exact amount given during each arterial beat: yet, if the development of only a small quantity was admitted, it necessarily followed, from the in-

cessant action of the arteries, that the body, unless cooled by the functions of the skin and lungs, would soon become preternaturally hot.

Dr. Winn presents the following physiological and pathological facts as corroborative of this theory:

1st. The minute distribution of the arteries to every part of the system, thus ensuring an equal distribution of heat. 2d. The *rigidity* of the arterial system, in old age, as being the probable cause of the diminution of animal heat. 3d. The increased warmth of the body after exercise seemed to be explicable upon the principle of the increased force of the arteries. 4th. When there existed any arterial excitement, and especially if the functions of the lungs (or skin) were at fault, the heat of the body would be greatly increased. 5th. Medicines which reduced the force of the heart and arteries diminished animal heat. 6th. The heat of local inflammations, when there was no constitutional disturbance, could only be accounted for in this way, as the arteries in the neighbourhood of the disease would be throbbing violently, whereas the capillaries, which are supposed to play so important a part in the chemical theory, are generally considered to have their action impeded.

On Constipation. By Professor TROUSSEAU.

Constipation should be defined, a difficulty in the execution of the fœcal matters, independent of any organic lesion. We should not rank among the constipated those in whom defecation is impeded by a tumor or hernia, or invagination, or other mechanical obstacle. Simple constipation is nothing more than absence of alvine evacuations.

Such a condition may depend on many causes. First, there is a sort of phisological constipation, connected with the constitution of the patient: an individual eats but little, and is endowed with great powers of assimilation. The quantity of excrementitious matters, in such a case, are insufficient to stimulate the intestine. These matters are accordingly retained until they accumulate, and their retention produces uneasiness. There are others, however, who eat largely and assimilate no better than their neighbors, whose intestines are consequently filled with fœcal matters, and still there is no regularity in the dejections. Such individuals suffer from continual malaise; they are in a state of constant discomfort: the want of proper alvine evacuations causes them real suffering.

Defecation, the last stage of digestion, is one of the most complex functions of the economy, and is deranged by a multitude of circumstances. The causes of constipation are numerous, there-

fore, but the most important are intestine inertia, and the faulty secretion of certain glands. Different secretions predominate in different individuals. One perspires freely, and urinates but little, and secretes but little saliva. The habit of another is the reverse of this; the secerning functions are complimentary, as it were, to one another. It is probable that the liver and pancreas also obey this law, and that they are affected by the excessive action of the other glands. However hypothetical this proposition may appear, it is as admissible as many others which are received in medicine. It is as rational to suspect the liver and pancreas, when there is a want of lubrification of the bowels, as to suspect the kidneys when there is some derangement of the urine.

Among the causes of constipation, we must examine particularly into the influence of diet, of habit, of senile debility, of diseases foreign to the intestines, and of the abuse of purgatives.

As we have already observed, some individuals eat so little, that the unassimilable matters are insufficient to furnish regular dejections. There are some kinds of food which cause the same result; which are digested with such facility that the fœcal residue amounts to nothing. Rice, for example, disappears almost entirely in digestion, and it is this property which renders it such an appropriate article of nutriment in cases of diarrhœa. Vegetable diet is the least nutritious, and produces most copious stools. To be convinced of this fact, it is only necessary to compare the dejections of herbivorous and carnivorous animals.

To a certain point, it may be said, that we evacuate the bowels when we wish to do so, only the will must be exercised. If we surmount this inclination to perform this function, it subsides, and may not return for many days. In this way a kind of constipation is produced, which is not the least obstinate or the easiest to cure. It is in this way that so many women, who are prevented from obeying the calls of nature by foolish scruples, and men of letters, who are absent-minded or pre-occupied, become obstinately constipated.

Purgatives, pills, and powders, irritant enemata, and even injections of cold water, and evacuants of all sorts, even when they do not induce a plegmasia of the intestinal canal, deprive it of its nermal irritability; it becomes insensible to the simple stimulation which once sufficed to produce the evacuation of the fœcal matters. As tobacco, after provoking an abundant secretion of mucus or saliva by a surexcitation of the glands of the nose and mouth, enfeebles in reality the natural secretion, which diminishes notably when the stimulus is withdrawn, so habitual enemata prevent the intestine from acting by itself, by lowering its excitability. This cause of constipation is very frequent in fashionable women, who early acquire the habit of relieving the bowels by an

enema in order to feel unembarrassed during the day. They soon lose the habit of evacuating the bowels naturally, and are forced to have recourse to other remedies of still greater energy.

Child-birth, certain uterine displacements, fissures of the anus, and hemorrhoids, render defecation very painful. Patients in these conditions put off the moment of evacuating the bowels, and induce a secondary constipation, which does not always cease when the cause which produced it is removed.

After several labors, sometimes after one only, the anterior abdominal wall becomes so flaccid and relaxed that it no longer contracts: the intestines are thus deprived of a powerful auxiliary and lose their tonicity.

Age, which impairs all the faculties and all the organic functions, does not spare the intestinal apparatus. Defecation is ill performed in the aged, like digestion and micturition, and retention of the fæces supervenes, without organic disease of the rectum, as retention of urine takes place without organic alteration of the bladder. The intestine undergoes a sort of senile paralysis. It no longer contracts on the excrementitial balls; it is powerless to expel it. Enormous agglomerations of fæces are formed, and dilatations are made above the sphincter ani, which sometimes give rise to grave complications in the operation of lithotomy.

Constipation is a serious disease, and deserves great attention: for even supposing that it is not dangerous in itself, it always complicates the slightest ailment, and frequently lays the foundation of an hypochondria, which involves life in numberless disorders.

The treatment should, above all, be directed to the removal of causes. It must not be thought that constipation is cured when an evacuation is procured; this would be as false as to imagine that a person is cured of wakefulness when he obtains sleep by opiates. We should seek not only to obtain relief for the moment, but regularity in the future. Constipation is not to be cured by Seidlitz powders or other purgatives, which, in the end, only increase it.

In the first place, it is necessary to regulate the function. We should do everything to subject it to the empire of the will. We know how great is the power of habit over organic functions. When once accustomed to operate in a certain way, at certain hours, they have a strong tendency to continue to act thus. The habit of going to the privy is like the habit of urinating at certain periods, the habit of shaving, and of washing the face. When once these habits are established, they cannot be dispensed with. A constipated person should visit the water-closet at a convenient hour; he should remain some time, concentrating all his atten-

tion, all his will, all his contractile powers, on the act in question; he should make reiterated and energetic efforts to accomplish it. Whatever the result, he should return at the same hour on the morrow, and if, in the interval, a desire to go to stool is felt, it should be resisted, and the closet should be visited only at the hour chosen.

The diet should be altered. Instead of the abstemious diet often adopted by patients, they should be ordered abundant and nutritious food, of a kind which will at the same time promote digestion, and leave a voluminous residue, which will force the intestine to disembarrass itself. This disease, we have said, causes numerous disorders. Constipated persons always have oppression of the stomach and head-ache, for which they are ordered a light diet, white meats in small quantity, little wine, etc. This is an error. They should be desired to eat largely of roast meats. They should be compelled to eat, and reminded that, according to the English expression, one leg of mutton follows another.

But sometimes it is necessary to assist the will by an adjuvant, to facilitate an act, the habit of which is lost, as it were. We must be aware of purgatives, but yet some medicine is necessary to assist defecation. Belladonna is this remedy *par excellence*. It does not purge; it only facilitates alvine evacuation. To what does it owe this property? It is difficult to say. Perhaps, as opium excites the cutaneous secretion, and digitalis that of the urine, so belladonna may influence the liver, pancreas, or other glands opening on the intestinal tract. What is certain, however, is, that the fifth of a grain of belladonna almost always procures several alvine evacuations. The dose may be increased to one grain; but as soon as the habit of defecation is restored, the dose of belladonna must be diminished, and gradually abandoned.

Suppositories are much used, and commonly succeed well. Country people employ the middle stock of the cabbage; physicians make them of hardened honey or cocoa.

Lastly, if constipation is connected with flaccidity of abdominal walls, we must have recourse to a tight abdominal bandage, which will confine the intestines normally, and enable them to contract.

From the Lancet.

Gangrene of the Lung successfully treated by Inhalations of Terebinthinate Vapors.

Dr. Skoda has published, in the Zeitchschrift, &c. of Vienna, several cases of gangrene of the lung, in which the symptoms gave way by the use of terrebinthinate vapors and the administration of quinine. In the first case, the cure was effected in six

weeks upon a servant, with whom the gangrene had attacked the upper lobe on the right side. An inn keeper, of middle age, was equally benefited by the same means, but the cure took a longer time and a stay in the country. He also took one grain of quinine every second hour. The treatment was not properly carried out in the third case: and the fourth, that of a journeyman butcher, of a robust constitution, is still pending. The latter had, however, so far recovered, after using the inhalations, and also taking Fowler's solution, that he could go into the country, though there was still some uneasiness in the left scapular region. The inhalations are made by pouring oil of turpentine on boiling water, the inspirations being repeated every second hour, and carried on for fifteen minutes.

Apoplexy.—Dr. Stone, of New Orleans, publishes some rambling remarks upon this and kindred diseases, in the Medical News of that city, in which there are some valuable practical ideas. He says there has been an unusual number of deaths during the past year, from nervous diseases: such as apoplexy, epilepsy, paralysis tetanus, convulsions in children, &c. He thinks an epidemic influence of a peculiar diathesis must prevail, to account for the prevalence of these, as of other diseases. A state of nervous debility or exhaustion, he considers the prominent feature, and that the fluids play a secondary part, whether considered in quantity or distribution. As in other cases which occasionally become epidemic, all the local and exciting causes that are known, may fail to produce them at other times. Apoplexy he considers a nervous disease, and refers to the erroneous notice so prevalent, that there is an undue rush of blood to the brain, which, being encased in the unyielding scull, cannot contain more at one time than another. If there be an effusion of blood or serum, it must be at the expense of the circulating fluids. The interrupted respiration in apoplexy checks the return of venous blood from the brain, and causes a proportional exclusion of arterial blood, and thus the effect may be mistaken for the cause. Persons with large heads and short necks are not on this account more prone to brain disease, except as their propensities and habits of life lead to it, the nervous system being brought to such a state of exhaustion as to overtax its energies to manage an overloaded stomach. Persons with small heads and long necks, find their nervous systems give way in some other parts before the apoplectic state is brought about. When this is not the case, they have apoplexy like others. Excessive indulgences do not show externally in such subjects, but tell upon tha brain with equal certainty as in those of plethoric habits

He deems blood-letting an improper remedy, although temporary benefit may be derived from it in cases of great plethora. A peculiar state of the stomach, independent of indigestible food, exercises a depressing influence on the brain, which blood-letting does not relieve. Cathartics which act without exciting the secretions afford little relief, but mercurial purgatives seldom fail, being aided by small doses of saline laxatives. He makes less account of emetics than one would be led to expect from a knowledge of his pathology; and less than we are disposed to do, from experience in the treatment of such cases. Vomiting, however produced, we have found the most efficient of all remedies in these diseases, whether in adults or children. Titilation of the throat with a feather will often excite emesis and afford prompt relief, when it is impossible to administer remedies of any kind. He advises croton oil for the convenience of exhibition, and stimulating injection, and carbonate of ammonia as a stimulant and thinks the rectum absorbs as readily in such cases as if nothing was the matter. Dr. S. believes that all functional disorders of the nervous system are disposed to become periodic, and tend to a favorable issue if interrupted respiration, and congestments of the lungs and brain can be warded off; but it must be borne in mind that his observations are made in New Orleans, where periodicity is the prominent characteristic of diseased conditions.

Preparations of Iron.—Donavan's formula is, pure sulphate of iron, one drachm; magnesia, ten grains; purified sugar, one ounce; rose or cinnamon water, eight ounces; mix. This is a scientific prescription; and if the iron be free from oxide, the green color is preserved for eight or ten days. The magnesia neutralizes the sulphuric acid, and converts the sulphate into a protoxide. The sugar prevents decomposition, and it may be flavored with mint or peppermint water. In the hysterical female, infusion of valerian adds to its value; and if there be great sense of exhaustion, ammonia in combination is most beneficial. In occasional constipation, caused by the loss of tone, the sulphate of zinc, with small doses of sulphate of strychnia, relieves. In severe chlorosis, the chrystallized citric acid adds to the iron mixture. If there be a periodical neuralgia, the most effective form is the precipitate o carbonate of iron. In severe cases of cholera and anæmic headache, Fowler's solution of arsenic was combined with Donavan' mixture, and in fourteen days both diseases were permanentl cured.—*London Lancet.*

BOOK NOTICES.

Transactions of the Illinois State Medical Society for 1854. Chicago: J. F. Ballantyne, Printer.

This is the title of a volume of 112 pages, printed in very good style, and containing the proceedings of the Illinois State Medical Society, held in June last, together with the Annual Address of the President, Prof. Brainard: a paper on the treatment of deformities of the lower extremities, by Dr. E. S. Cooper; the Prize Essay on the difference between Stimulants and Tonics, by Dr. H. Parker, of Chicago: and the list of Members of the Societ The proceedings of the Annual Meeting, and the Address on the Treatment of Poisoned Wounds, by Prof. D. Brainard, have already been published in former numbers of this Journal. The paper of Dr. Cooper occupies sixteen pages of the volume, and bears the following title, viz.: "Walking rendered the Primary Element in the Cure of Deformities of the Lower Extremities; its early Adaptation to White Swelling and Coxalgia, with Apparatus for carrying out the designs of the same."

In reference to the construction and application of instruments or machines to aid in the removal of deformities, Dr. Cooper gives the following rules, viz.:

"1st. They should press equally upon the largest possible amount of surface over which they may be applied.

2d. To change the points of pressure, whenever required, to favor a tender part, without disturbance to the treatment.

3d. To cause no material interruption to the circulation of the blood.

4th. To permit the free exercise of the limb when not prevented by other causes.

5th. To adapt themselves consistently to the changes of the limb during the process of cure.

6th. In the lower extremities, to facilitate walking while the cure is in progress, and, in most instances, render it the active agent in removing the deformity."

In attempting to apply these rules practically, Dr. Cooper treats more particularly of "club-foot," false anchylosis of the *knee* joint, and scrofulous disease both of the knee and hip. In reference to the treatment of all these diseases the author's views are somewhat novel, and worthy of a careful perusal. But we could not give a fair representation of them without quoting his paper entire, or writing one of our own of nearly equal length. Hence those who desire further knowledge on the subject must refer directly to the paper in the *Transactions*.

The next and last paper contained in the volume before us is the Prize Essay on Stimulants and Tonics, by Henry Parker, M.D., of Chicago. It occupies 54 pages, and is written in good style. The author founds his essay on the following distinct propositions, viz.:

"1st. That all living organized matter is endowed with certain inherent elementary properties, conditions or forces, necessary and essential for the production of vital phenomena.

2nd. That the elementary forces of all organized structures, are in no way derived from any connection with the nervous system, but are distinct, inherent and peculiar.

3rd. That the elementary properties and functions of the animal tissues are susceptible to various influences and changes through the medium and quality of the blood.

4th. That a first class of medicines, called stimulants, of which alcohol is the type, manifest a primary and specific action upon the brain and nerves, or nerve centres, which they influence. Their action is transitory, exalting nerve-force. That coincident with their action upon these structures, they exert a direct and deleterious influence upon the component elements of the blood and tissues, with the ultimate effect of lowering the elementary vital properties of the body—tonicity and susceptibility.

5th. That a second class of medicines, called tonics, act while in the blood, improving its quality and composition, and thereby the tonicity and firmness of the general system. That their action is slow and permanent—exalting vital force."

In illustrating the first three propositions, Dr. Parker enters upon a true physiological discussion concerning the elementary

properties and functions of organized and living matter, and their capability of being acted on or modified by medicinal agents. This seemed to constitute a necessary introduction to the main subjects embraced in the fourth and fifth propositions. For it is evident that there can be no clear conception of the *modus operandi*, of a medical agent, without a previous definite knowledge of all those properties and functions of the living structures which are susceptible of being acted upon or modified.

To sustain his *fourth* proposition the author introduces several interesting experiments with alcoholic drinks, camphor and carbonate of ammonia, together with a summary of the opinions of Percy, Prout, Liebig, Carpenter, Pereira, and Ducheck.

From all his investigations, he educed the following general conclusions concerning the action of alcoholic stimulants, viz:

6th. That the popular belief, that the action of alcoholic stimulants is confined to the brain and nervous system alone, simply inducing mental exhilaration, and a temporary exaltation of nervous power, is not true; but that coincident with their action upon these structures, they exert in a variable degree a direct and deleterious influence upon the component elements of the blood and tissues, with the ultimate effect of lowering the elementary vital properties of the body, tonicity and susceptibility.

This they accomplish in the following manner:

1st. By their great affinity for, and absorption of the oxygen of the blood, thereby interfering with its agency in the formation of plastic material, and impairing the organizability of those compounds designed for nutrition and reproduction. 2nd. By preventing or retarding that vital change—the *conversion of venous blood into arterial*, and diminishing the functional activity of the secreting and excreting structures generally, thus causing a retention and accumulation in the blood of effete and excrementitious compounds. 3d. By retarding capillary circulation and the metamorphosis of the tissues.

7th. That alcoholic stimulants diminish animal heat, and the exhalation of carbonic acid.

8th. That the popular notion that alcoholic stimulants promote healthy digestion and chymification, is not true, and therefore should be discountenanced and discouraged by medical men, not only as failing in this, but as destroying the natural sensibility of the stomach, and inducing morbid irritability and diseased action.

9th. That the stimulation and excitement which naturally fol-

lows the use of these substances, tends to destroy that harmony of action between the different organs and forces of the body, upon which their functional activity, and the continuance and maintenance of health depends. Finally,

"That alcoholic stimulants are the most unfit, and the least calculated of all other expedients, to impart strength and vitality to the human system, or enable it to resist the depressing influences of cold or hunger, fatigue or disease, or any of the various circumstances and events to which it may be exposed."

To sustain his fifth proposition, the author introduces no new experiments, but relies on the general observations of writers concerning the action of tonics. He even omits, in this part of his essay, many interesting and valuable facts bearing upon the subject, which a more extended examination of our medical literature would have disclosed to his view. The general conclusions which he deduces from this part of his task are stated as follows:

1st. That tonics are hæmatic medicines, and as such, are restorative in their influences: that, unlike *neurotics* and *stimulant*, they have no direct or special action upon nerve matter.

2nd. That they are not foreign to the blood, and may therefore remain in it: that they improve its quality, and the plasticity of its organizable material, assisting digestion and promoting assimilation and nutrition. Hence they are slow, but permanent in their effects.

3d. That they exalt the tone of the muscular fibre: and hence by their use, "the pulse becomes fuller, stronger and regular, and the muscular power increased."—that they increase the cohesion and density of the tissues—diminish profuse secretions when dependent upon atony and debility, and finally, augment the vital forces of the system in general, thereby restoring *susceptibility* when defective, and the properties and functions of the nervous system to their normal condition.

Our design in noticing this essay, is simply to give the reader such an idea of its general scope and matter as will induce him to procure and read it for himself, rather than to examine it with the pen of a critic. Were we disposed to assume the latter position, however, we should be compelled to question the correctness of some parts of the *fourth* general proposition, already quoted. In it the author asserts that, "their action (alcoholic stimulants) is transitory, *exalting* nervous force." That this class of agents exert a primary influence on the brain directly increasing nervous exhileration, excitement or susceptibility, we admit

But the expression "*exalting nervous force.*" plainly implies an increase of nervous energy, power, or strength; which is certainly not one of the effects of alcohol. Under its influence an individual may manifest rapidity of thought, social vivacity, and acuteness of perception, but we seek in vain for, even a temporary increase of true nervous energy or strength. Again the assertion that "they (stimulants) exert a direct and deleterious influence on the component elements of the blood and tissues," though true so far as regards alcohol, is by no means equally so in regard to all stimulants. Thus Gum Camphor, tea and coffee are all stimulants in the sense given to that term by our author. The first is included by him in the list of articles experimented with. But we can discover nothing in the results of his experiments, or in the observations of others which would countenance the idea that they exert any special deleterious influence, either on the elements of the blood or of the organized tissues of the body.

But these errors, (if errors they are), arise more from the want precision in the use of language than from erroneous ideas in the mind of the author.

The essay, as a whole, is one highly creditable to the author, and well worthy of careful perusal by the profession. There are one or two things, however, in the essay which require explanation. Readers of the Journal will recollect that nearly two years since I commenced publishing in its columns a series of articles on the "Pathology of Fevers." In one of the earlier numbers of this series, I detailed two experiments designed to show the influence of alcoholic drinks on the human system, and especially on the functions of Respiration and Calorification.

These experiments were dated, the first, Oct. 18, 1852, and the second, Nov. 8th, of the same year. They are there introduced as part of a series of experiments "I commenced in the winter of 1850," and they are represented throughout as having been conceived and executed by me

The reader will readily perceive that the two first experiments detailed in the prize essay are the same as previously published by me. They are introduced by Dr. Parker as though they had been conceived and executed directly under his own supervision,

simply acknowledging in a marginal note that he had been *assisted* by me. If he had said in the marginal note that they were part of a series which he had witnessed in my office, and which he had been authorized to use, it would have saved the necessity for this explanation. Beside this, however, justice required that he should have made some reference to one or more similar experiments instituted by me in the winter of 1850, and published by me in this Journal during the summer of 1851, after having been read to the American Medical Association, during its meeting in Charleston, S.C. We shall say nothing of the striking similarity between the views presented in the Essay concerning the *elementary properties* and functions of organized matter, and those previously published by me in the articles on the Pathology of Fevers. Indeed, we would here remark, silent concerning the experiments also, had it not been for the fact, that they constitute part of a series on which we have bestowed much labor through several years, and which we intend at some future day to communicate to the profession more in detail.

Accompanying the address of Prof. Bouisaud on Poisoned Wounds, are two lithograph plates which enhance the value of the work, and with the quality of the matter contained, make the present volume of Transactions of our State Society equal in interest and importance to those published by other State organizations. D.

Transactions of the American Medical Association. Instituted 1847. Vol. vii New York: C. B. Norton. 1854.

We are happy to announce to our readers the appearance of this volume of the Transactions. During the last few years it has generally reached us about ten months after the date of the annual meeting of the society. We do not wish to be understood as attaching any blame to previous committees of publication, although in many instances it has been two or three months after our eastern exchanges were supplied, before western readers and western journals received it. It may be that our eastern friends received some new ideas in reference to the professional interests of the west at the last meeting in St. Louis.

The volume contains, in addition to the minutes of the Seventh Annual Meeting, the address of Dr. Parsons, Vice-President, the report of the Committee on Medical Education, the report of the Committee on the Epidemics of Kentucky and Tennessee, on Erysipelas, by R. S. Holmes, M.D., of St. Louis; on the Medicinal and Toxicological properties of the Cryptogamic Plants of the United States, by Dr. Proctor, of Charleston, S. C.; Report on the Epidemics of Ohio, Indiana and Michigan, for the years 1852—3; Report on the Epidemics of Louisiana, Arkansas, and Texas in the year 1853; the prize essay on a new method of Treating Ununited Fractures and certain Deformities of the Osseous System, by I r. D. Brainard, of Chicago; report on the Norwalk Disaster, and the reports of the Committee of Publication, Catalogue of the Officers, and permanent members and index.

We shall give analyses of the most interesting of these papers in future numbers of the Journal. The mechanical execution of the volume is good and does credit both to the committee and the publishers. We advise those of our readers who wish to secure a copy for their libraries to send in their orders soon to Dr. Pliny Earle, New York Chairman of the Committee of Publication.

J.

On the Construction, Organization, and General Arrangement of Hospitals for the Insane. By Thomas S. Kirkbride, M.D., Physician to the Pennsylvania Hospital for the Insane. Philadelphia: Lindsay & Blakiston, 1854.

The growing interest for the welfare of the Insane manifested by States as well as by individuals, is one of the encouraging signs of the present age. The wants of this unfortunate class of the community are being recognized, while interest and duty alike prompt to measures for their relief. In our own country, institutions are springing up in almost every State, where their physical wants are judiciously cared for, and their mental maladies properly treated. Dr. Kirkbride, in the little work before us, has made some valuable suggestions as to the style of architecture and internal arrangements best suited for the gratification of the taste and the accommodation of the Insane.

We commend the work to the careful perusal of all those inte-

rested in the erection or management of hospitals for this class of the community. J.

Registration of Births. Marriages and Deaths in Rhode Island, for the year ending May 31st, 1853. Prepared under the direction of ASA POTTER, Secretary of State.

The above is a pamphlet of 188 pages, containing the first annual registration report for the State of Rhode Island.

The work of compiling the report was chiefly done by Thomas H. Webb, M. D., of Providence, who seems to have performed his task with much patience and care

Forty pages are occupied with statistical tables giving the number of Births, Marriages and Deaths in each county with their population, as determined by the census. These tables embrace a great amount of very useful matter. The remaining 148 pages are occupied with an interesting history of the progress of legislation, and a detailed analysis of the facts furnished in the statistical tables.

Dr. Webb has evidently bestowed on the report much labor, and has thereby made it correspondingly interesting and valuable to the whole profession. We hope the time will soon come when every State in the Union will have, not only a good registry law, but one well executed.

Congestion of the brain in cholera, by James M. Newman, M. D., Buffalo, N. Y.

Galt on Insanity.

Elkoplasty or Anaplasty applied to the treatment of old ulcers; also a new mode of treatment for delayed or non-union of a fractured humerus, by Frank H. Hamilton, A. M., M. D., Professor of Surgery, &c., &c.

Resume de Recherches cliniques sur la fievre continue, la dyssenterie, la pleuresie chronique, et sur les variations du ton dans les sons fournis par la percussion, et par l'auscultation, par Austin Flint, M. D., Professeur de Medicine, theorique et pratique a l'Universite de Louisville, etat de Kentucky, Etat Unis d'Amerique. Paris. 1854.

Proceedings of the American Pharmaceutical Association, at the third annual meeting held in Cincinnati July 25th and 26th, 1854. Published by direction of the Association.

Eighth Annual Report of the Board of Regents of the Smithsonian Institution.

Dr. Newman enumerates the following as the premonitory and positive symptoms of congestion of the brain in cholera:

There is a class of cases in which there never occurs the pallid, sunken countenance generally seen in cholera, and so characteristic of the disease. If reaction is established, the bright, if not ruddy complexion of the patient seems to belie the assertion that but a few hours before they were at the very mouth of the grave.

This redness of the face is attended by several peculiarities. In some cases it presents the appearance of a bright blush diffusing itself over the whole cheek. In others it is a deeper red, and not so generally diffused; the color toward the center of the patch becoming more and more intense, a bright circumscribed spot is manifest upon a field of less intensity. The small cutaneous vessels are minutely injected, and the general appearance is not unlike that caused by the immoderate use of alcoholic stimulants, or frequent and long exposure to the sun.

This redness of the skin, depending upon the injection of the vessels, is very persistent. It remains during the whole period of treatment, and long after convalescence. It seems as if it required to be removed by some process of reparation.

The eyes are more or less injected. The intensity of this injection is very various, and is increased with the the persistency of the case, and its tendency to a fatal termination. The conjunctivæ in some cases are injected in their lower halves only, that portion covered by the upper lids remaining singularly clear.

If convalescence be not speedily established, the vomiting and purging continue, or, if for a time checked return again. Drinks, medicines, and nourishments are all alike rejected by the stomach; and the matters thrown up cease to be a mere colorless liquid, but are more or less tinged, generally being yellow, sometimes greenish.

The discharges from the bowels are frequent and assume in a greater or less degree the consistency, color and appearance of ordinary diarrhœa. The discharges sometimes are very offensive. This condition is not always observable, the evacuations occasionally continuing throughout the disease rice water. But I believe this is more generally observable in cases of a rapid termination, and in cases where a relapse has been sudden from a condition of

comparative convalescence, and partakes of the character of a second attack of cholera.

As the vomiting and diarrhœa continue, the strength wanes; the color of the face deepens, or extends in surface; the eyes are more and more injected: the patient becomes drowsy and inclined to sleep; the stupor gradually increases, and finally profound coma becomes established, terminating in death, or recovery after long treatment and a tedious convalescence.

The condition just described is Conjestion of the Brain in the course of Cholera.

The flushed face, and injected eye, are the premonitory symptoms of and the indications pointing out the tendency of the disease to such a termination, and warn us against any treatment which may precipitately hurry it on, and conduce to hasten our patients to the grave.

I would solicit for the consideration of these conditions of the face and eye, more than a casual notice. I have come to regard them as valuable diagnostic signs; and as they occur earlier in the disease, look upon them as affording us an unerring index to our course of treatment. With these marks upon our patients we have Congestion of the Brain, in some form or other, to contend with. And fortunate indeed shall we be if our patient prove to be lightly affected, or our medication wards off the impending evil.

The author regards the vomiting and purging at this stage of the disease as choleraic only in their character and indications, the vomiting depending on irritation of the brain from congestion, while the diarrhœa is due partly to the same cause, and partly to the exudation of the serum of the blood through the coats of the intestines, in consequence of a change of vital action or lesion of structure in their membranes. Although the writer regards this as a stage of cholera, yet he says that in the treatment "we are here to cease to regard and to treat the disease as cholera merely; but we are to merge this consideration into a knowledge of the fact that we have a brain affection to treat sufficiently serious to destroy our patient." Grant this fact, but what is this brain affection? Dr Newman thinks it may be simple conjestion or a state of inflammation co-existing with congestion. It has been supposed by others that it is dependent on retained excretible materials, especially urea, acting as a positive poison to the nervous system. It has seemed to us from many observations that it is simply a local manifestation of the *grand mal*, and that to under-

stand it we have only to trace the changes that take place in the fluids and solids of the body from the first invasion of the disease.

The premonitory diarrhœa, as it has been called, we consider one stage of cholera. During this period the water of the blood is rapidly passing into the alimentary tube: the specific gravity of the liquor sanguinis in the blood vessels is increased: and by the law of exosmosis, the contents of the corpuscles passes through their walls, leaving them in a corrugated condition. As the disease progresses, first the inorganic, second the organic solids pass into the intestinal canal, the blood corpuscles become still more collapsed, from the viscid condition of the blood, they circulate but slowly, and their function as the carriers of oxygen is performed with constantly increasing difficulty

We believe it is admitted by physiologists of the present day that the functional activity of parts is dependent on the molecular changes in their ultimate organic elements, and that these changes are effected mainly by the agency of oxygen. If this be so, we can understand how a series of morbid changes in the fluids and solids of the blood may affect the different extra-vascular structures. The old worn-out particle is not removed, the new material is not supplied, the process of secondary assimilation is entirely arrested, with a consequent loss of function, not of one organ only but of the whole system. The arrest of the circulation or the congestion seems therefore to be dependent on two causes: first, the viscidity of the blood, from a loss of water; secondly and chiefly, in the loss of the force existing in the capillaries and in the arterial walls. It is general in its character, manifesting itself, first through those organs most sensitive to injury, and in their derangements affecting most seriously the vitality of the organism. The therapeutical indications are to restore to the blood its normal conditions, and to excite the secretions by introducing into the system those substances known to possess an influence over them.

The first of these indications may be fulfilled by allowing or requiring, if need be, that the patient drink largely of weak solutions of the neutral salts of soda and potassa, while at the same time beef tea or the essence of beef is administered in as liberal

quantities as the stomach will retain, thus supplying those constituents that have been drained during the active stage of the disease. For meeting the second indication, we may use in addition to the saline above mentioned, mercurials, the measure of their quantity being the effect produced. The experience of the profession would, therefore, lead to a quite unanimous testimony to their good effects in this stage of the disease, but whether they act as revulsives, as Dr. Newnham thinks, and thus relieve the congestion which he supposes is confined to the brain, or whether they serve as regulants of the organic actions generally, as we think more probable, it is perhaps difficult to say.

The essay of Dr Galt is from the American Journal of Insanity. It contains much that is interesting, not only to those who are more immediately charged with the care of the Insane, but also to the general medical reader.

Dr. Hamilton proposes to cure indolent ulcers, where there is a loss of integuments, by grafting from remote parts healthy tissues. The following is his summary :

1st —Ulcers, accompanied with extensive loss of integument, do generally refuse to heal, whatever may be the health of the body or of the limb.

2d. Anaplasty will sometimes succeed in accomplishing a permanent cure, and especially where the health of the body and of the limb are perfect, and where, by inference, the refusal to heal is alone attributable to the extent of the integumentary loss.

3d —The graft must be brought from a part quite remote; generally from an opposite limb, or from another person.

4th.—If smaller than the chasm which it is intended to fill, the graft will grow, or project from itself new skin to supply the deficiency.

5th —It is not improbable that the graft will expand during the process of cicatrization at its margins, but especially for a time after the cicatrization is consummated.

6th —In consequence of one or both of these two latter circumstances, it will not be necessary to make the graft so large as the deficiency it is intended to supply.

Dr. H. proposes to treat ununited fractures of the humerus by first straightening the arm. A case is reported in which this course was pursued and the ends of the bones perforated, as recommended by Dr Brainard in similar cases. Union was established in less than forty days.

Dr. Flint, in his resume, has given the essential points of his work on continued fever, dysentery, chronic pleurisy, and his prize essay on the variations of the pitch in the sounds furnished by auscultation and percussion, published in French during his recent visit to Paris. The works have been noticed in our journal, and we have nothing more to say in reference to them.

We have not space in the present number to do more than acknowledge the receipt of the remaining works.

We have received catalogues of medical and surgical works, by Blanchard & Lea, Philadelphia; and the Messrs. Wood of New York. Also, the Eighteenth Annual Report of the Directors and Superintendent of the Vermont Asylum for the Insane. J.

The Voluntary System of Medical Education Instituted by the Independent Medical School of Pensylvania, Chartered May 8th, 1854: King & Baird, Printers, Philadelphia.

The above is the title of a pamphlet of 20 pages, containing some just criticisms on the present system of Medical Education, and explaining the nature and objects of what is styled the "Independent Medical School of Pensylvania."

The proposed organization is not to be a school for giving instructions or lectures, but solely for the purpose of securing an independent board of examiners before whom the candidate for Medical honors can present himself and receive a thorough examination without reference to the place where he may have pursued his studies or attended on lectures. We infer from the pamphlet that a charter has been obtained granting all the powers necessary for carrying into effect such an institution.

An attempt of a similar character was made in Philadelphia, so early as the year 1837; and was then advocated by a very large proportion of the profession in that city. But the legislature then refused to grant them the necessary charter. (See Eclectic Journal Med. vol. I. p. 80.) We hope the present effort will meet with better success; for we hail every movement that tends to sever the present connection between the business of *teaching* medicine and granting diplomas which serve as licenses to practice.

We have long contended that the several medical schools of our country could never be thrown fully upon their actual merits, as institutions of learning and sound instruction, so long as the privilege of conferring degrees placed the most insignificant school on the same level, in this respect, with the most renowned. But the establishment of ever so many *Independent Boards of Examination* will not remedy some of the most prominent objections to the present system of medical education. Take, for instance, the objection stated very clearly in the following paragraph from the pamphlet before us:

"Out of the customary limitation to a *duplicated session* of four or five months, (the two sessions that make up the term of public instruction, are in fact, but copies and representations of each other,) *there grows an unavoidable confusion of study*—a mixture without order, relation, or natural sequence and dependency. Anatomy, for instance, which certainly ought to have some fixed place in the programme of tuition, corresponding to its natural order in study, is taught in a tangled coil of surgery, physiology, therapeutics, and obstetries! The surgeon begins, perhaps, with inflammation, and the chair of practice opens on fevers, while the anatomist is still lecturing on the *bones*. And amputations, the action of remedies upon the vascular and nervous systems, and the mechanism of parturition; are under discussion in their several chairs, before the anatomist has reached a muscle, artery or nerve, involved in the prelections of his fellow-professors!"

This crowding of the whole field of Medical Science upon the mind of the student without method or natural order, during a limited session of college instruction, has long been felt as a radical fault. But the remedy proposed both in the pamphlet and elsewhere, which consists in *simply lengthening the college terms*, is wholly futile and inadequate. Here was the great error of the American Medical Association. Its members saw clearly the absurdity of crowding the field of medical study into the brief period of four months, and hence one of their first acts was to recommend the addition of *two months* to the college term. But in doing this they left the same confusion, the same daily crowding of di-

verse branches upon the mind, regardless of their natural sequence, as before. Consequently it only subjected the student to a more protracted endurance of the same difficulties as in the short sessions; and the recommendation proved an entire failure. If the Association had, with the same unanimity, recommended the annual college session to be extended to *nine* months, instead of six; and then subdivided it into *terms* of three months each, with a division of the science of medicine into *twelve* departments—four of which should be taught in each of the *terms* of the college session; they might have so grouped the several departments or branches that all students during the first year of study should attend one term of *four* branches, presented in four lectures a day for three months, thereby giving ample time for practical dissections and study—those in the second year of study should attend another term of *four* branches, three months, during which they should still dissect and also attend hospital for the special purpose of studying Pathology—and those in the third and last year of pupilage, having now laid a good foundation should attend the *third* term of the college session, which should embrace the great remedial or directly practical branches with clinical instruction both for its Pathology and Therapeutics.

This would place the several departments of medical study in something like their natural order of sequence and dependence, and would secure a most desirable degree of method and thoroughness in our system of medical education, without any increased tax on the student's time or pecuniary resources. If such a system of college instruction was adopted together with the establishment of independent boards of censors for confering degrees, it would soon place every college entirely on its merits and resources for instruction, and give to college competition a widely different tendency, in some respects, from what it has possessed during the last half century. In the meantime we would commend to the attention of the friends of the "Voluntary System," in Pennsylvania, the concluding chapter of a little (and much abused work) we published a few years since "On Medical Education." D.

EDITORIAL.

To Members of the Illinois State Medical Society:

THE volume of the Transactions of this Society for 1854 has been published and mailed to all who have paid the annual assessment of Two Dollars. The names of all such are published in the list at the end of the volume.

But there are many who have been and are still included as *members* of the Society who have not paid their assessment, and the amount of money received into the treasury is not yet sufficient to pay the expenses of publication. It will be seen from the notice of the volume of Transactions in this number of the journal, that it contains some matter of permanent value.

Will not all those whose names have been enrolled on the list of members of the Society, who have not already done so, forward without delay their names with the annual assessment, and thereby furnish themselves with the Transactions, and the treasury with funds. It will save time and trouble if all applications for copies are addressed directly to N. S. Davis, Treasurer of the Society, Chicago, Ill.

D.

THE next number, which is the last of the present volume, will contain a leading article on a form of *Jaundice*, which was quite prevalent during the middle part of the last winter, and cases of which are again becoming frequent. With the commencement of the new volume, we shall resume the series of Articles on the Pathology of Fevers, which was commenced in volume ii., and continue them until they embrace a full exposition of our views of the *causes* and *treatment* of this large and important class of diseases.

In the meantime we hope our friends will not withhold their contributions to our columns.